

Sept. 3, 1974
Revised July 1975
Revised July 1976

SPILL PREVENTION CONTROL
AND
COUNTERMEASURE PLAN
LONG ISLAND LIGHTING COMPANY

333561



SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Electric Generating Stations, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities; nor does it include facilities which, because of their location, could not reasonably be expected to discharge oil into or upon navigable waters.

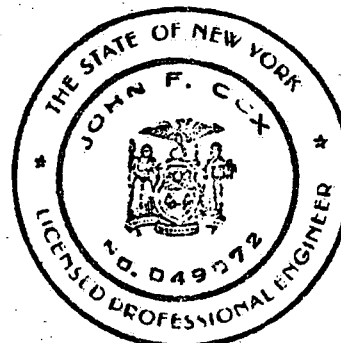
The SPCC Plan for Electrical Substation Facilities covers the Electric Substations that are located on the Electric Generating Station Properties.

Dated: July 13, 1976

Professional Engineer's Certification

Distribution:

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J. B. Peck
M. S. Pollock
A. L. Galloway
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Division Managers
Departmental Copy



John F. Cox

SPILL PREVENTION CONTROL
AND
COUNTERMEASURE PLAN
FOR
LONG ISLAND LIGHTING COMPANY

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FUEL OIL SPILL CONTINGENCY PLAN

LONG ISLAND LIGHTING COMPANY

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

A. SCOPE

The objectives of the FUEL OIL SPILL CONTINGENCY PLAN are:

1. To prevent and minimize damage to wildlife, beaches, and property.
2. To restore normal conditions in the shortest possible time.
3. To coordinate with local and central government agencies so that their priorities are given proper consideration.

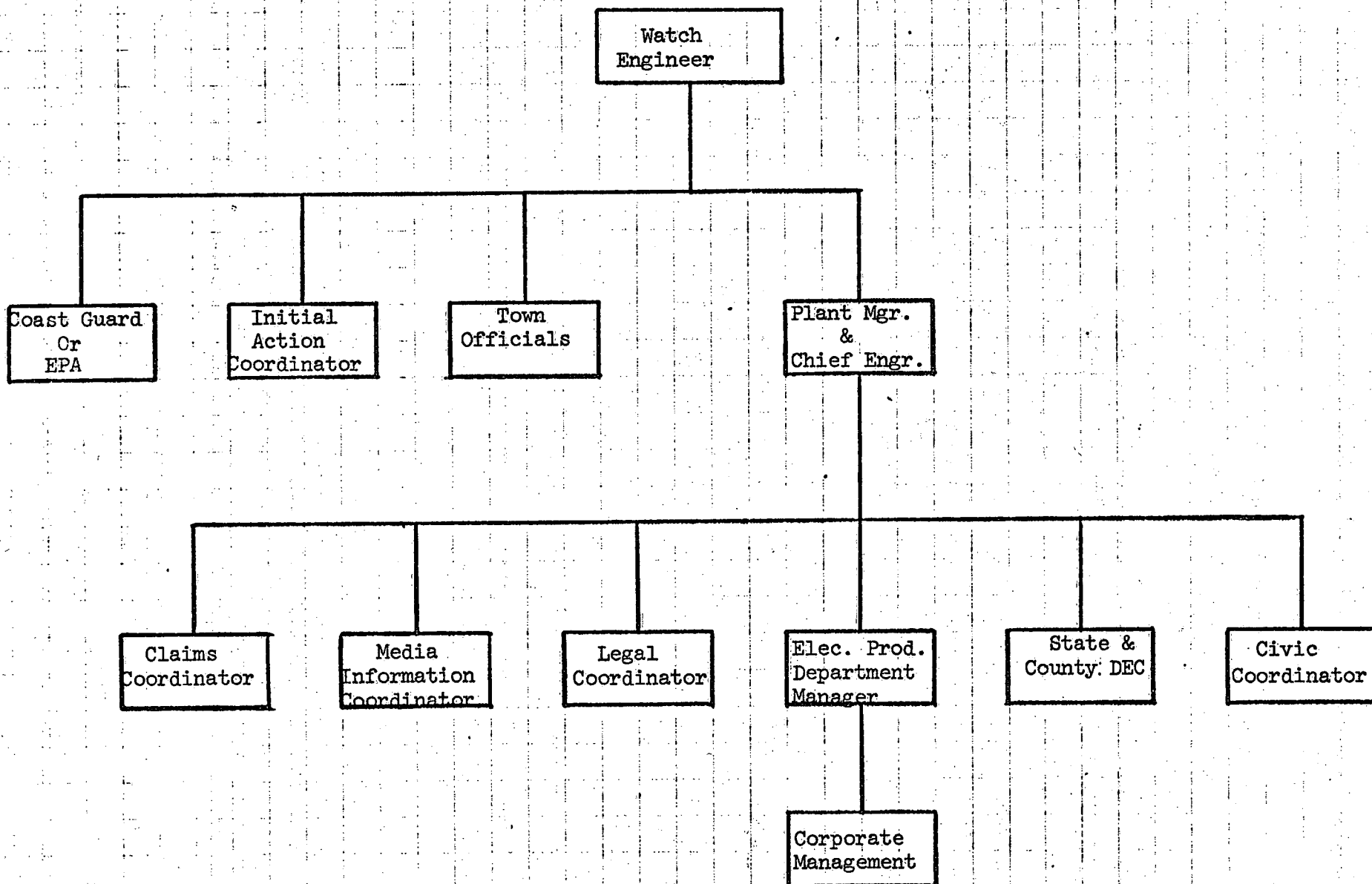
The heart of the contingency plan is the early initial assignment of responsibility to a sufficient number of supervisors so that all phases of the operation proceed simultaneously, and efficiently. Implementation of this plan contemplates full mobilization of company personnel and equipment as required.

B. INITIAL NOTIFICATION

The following personnel will be notified with priority attached to the order of listing:

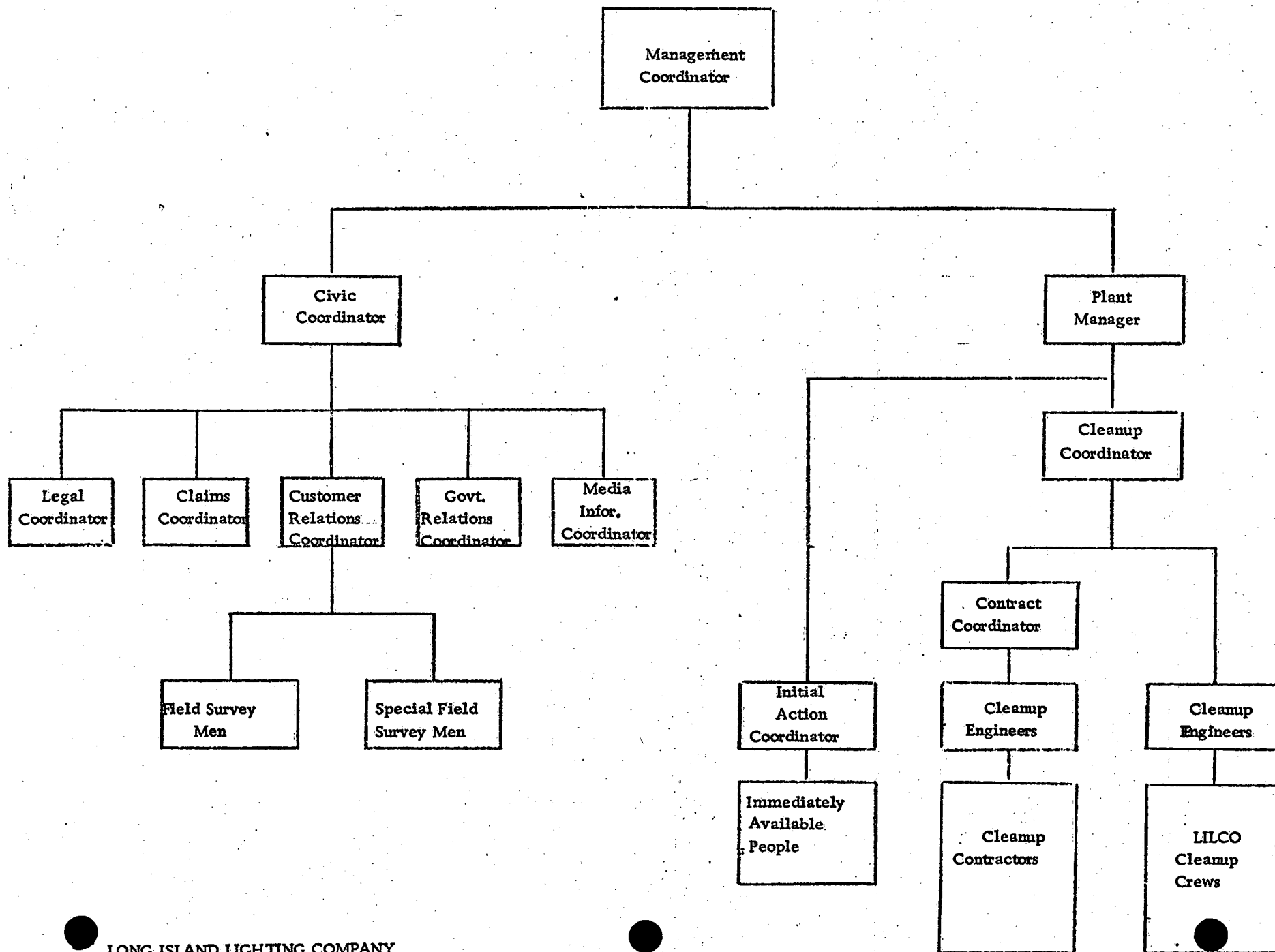
1. Coast Guard
2. Nearest Town officials
3. Plant Manager/Chief Engineer
4. Electric Production Department Manager
5. Claims Coordinator
6. Department of Environmental Conservation (State)
7. Department of Environmental Control (County)
8. Environmental Protection Agency(only if Coast Guard is un-
9. Other local village, township & county officials. available)

Upon receipt of the oil spill alarm, the Watch Engineer shall, without delay, notify the Coast Guard, State and Town officials. The Plant Manager or Chief Engineer will be notified as soon as possible. The Plant Manager will immediately notify the Electric Production Manager and a decision will be made to what degree the FUEL OIL SPILL CONTINGENCY PLAN will be implemented. The Electric Production Manager will assume overall responsibility for the operation as MANAGEMENT COORDINATOR. The Plant Manager will then continue down the initial notifications list (Exhibit I), alerting the State and County Departments of Environmental Conservation, the CIVIC COORDINATOR, the LEGAL COORDINATOR, the CLAIMS COORDINATOR and the MEDIA INFORMATION COORDINATOR.



LONG ISLAND LIGHTING COMPANY
FUEL OIL SPILL CONTINGENCY PLAN
INITIAL NOTIFICATION DIAGRAM

EXHIBIT I



Long Island Lighting Co.
Fuel Oil Spill
Initial Notification Directory

<u>Institute</u>	<u>Telephone</u>	<u>Comments</u>	<u>Northport</u>	<u>Port Jeff.</u>	<u>Glenwood</u>	<u>Barrett</u>	<u>Far Rock</u>
<u>COAST GUARD</u>							
Far Rockaway	(212) NE4-2848					X	X
Atlantic Beach	(516) 239-3175					X	X
Eaton Neck	" 261-6868		X	X			
New Haven	(203) 432-2456		X	X	X		
<u>LOCAL GOVERNMENT -</u>							
Huntington Town	(516) 421-1000/427-2700		X				
Brookhaven Town	(516) 475-5500 X.380,381		X	X			
G. Proios	(516) 698-7691	After Bus. hrs					
Smithtown	(516) 269-1122		X				
"	265-2900	- After hrs.	X				
Town, N. Hempstd	" 883-2484	- 627-0 590-				X	
Town, Oyster Bay	" 922-5800	(Mr. Clinton Smith				X	
After Bus. hrs.	" 922-0458	Harbormaster)				X	
Town Hall	" 921-7347	- Dir. Env. Control					
<u>STATE DEPT. OF ENVIRONMENTAL CONSERVATION</u>							
	(516) 751-7900	- X.205	X	X	X	X	X
<u>SUFFOLK COUNTY DEPT. OF ENVIRONMENT CONTROL</u>							
	(516) 234-2622	- X.309	X	X			
<u>NASSAU COUNTY</u>							
<u>DEPT. OF PUBLIC WORKS</u>							
	(516) 546-7948				X	X	
Fire Marshal	" 535-4633				X	X	
	" 535-3203	After hrs. & weekends			X	X	
<u>NEW YORK CITY FIRE DEPARTMENT</u>							
	(212) 744-1000	- Ask for dispatcher					X
<u>ENVIRONMENTAL PROTECTION AGENCY</u>							
	(201) 548-8730		X	X	X	X	X
<u>NASSAU COUNTY BUREAU OF WATER POLLUTION CONTROL</u>							
	(516) 535-2404, 2405, 2406, 2407				X	X	

INITIAL NOTIFICATION DIRECTORY
(Continued)

<u>Electric Production Dept.</u>			<u>Northport</u>	<u>Port Jeff.</u>	<u>Glenwood</u>	<u>Barrett</u>	<u>Far Rock</u>
	<u>LILCO</u>	<u>HOME</u>					
M. S. Pollock, Mgr.	733-4013	261-6308	X	X	X	X	X
Radio	#070	734-6557					
<u>Special Services Manager (Production Dept.)</u>							
A. L. Galloway, Mgr.	733-4474	473-3767	X	X	X	X	X
Radio	#080						
<u>Manager, Gas & Electric Production</u>							
J. B. Peck	733-4043	676-6628	X	X	X	X	X
<u>Civic Coordinators</u>							
J. A. Faller	228-2069	661-1975	X	X	X	X	X
S. W. Turley	348-6190	363-6281	X	X	X	X	X
W. A. Burnich	733-4733	261-7915	X	X	X	X	X
<u>Claims Coordinators</u>							
A. M. Steele	228-2205	751-2188	X	X	X	X	X
J. P. Gutkes	228-2211	796-1832	X	X	X	X	X
<u>Legal Coordinators</u>							
H. M. Leiman	228-2150	(212) 592-0234	X	X	X	X	X
E. J. Walsh	228-2147	746-2682	X	X	X	X	X
R. C. Richards	228-2141	(212) 762-1947	X	X	X	X	X
C. E. Rafuse	228-2009	795-5652	X	X	X	X	X
<u>Media Information Coordinators</u>							
J. Bruce	228-2308	482-8318	X	X	X	X	X
E. Hosansky	228-2030	(212) 866-9561	X	X	X	X	X
J. Novarro	228-2309	929-4294	X	X	X	X	X

C. MANAGEMENT COORDINATOR

The MANAGEMENT COORDINATOR will contact the Operations Vice-President. The MANAGEMENT COORDINATOR has the responsibility of contacting all company divisions conferring authority upon the designated coordinators to procure man power, equipment, and materials.

It is mandatory for effective implementation of the FUEL OIL SPILL CONTINGENCY PLAN that activities be coordinated simultaneously. The coordinators listed below will proceed with their functions as soon as they are designated.

Coordinators to be designated are as follows:

1. INITIAL ACTION COORDINATOR
2. CIVIC COORDINATOR
3. CONTRACTOR COORDINATOR
4. CLEANUP COORDINATOR

D. INITIAL ACTION COORDINATOR

The INITIAL ACTION COORDINATOR will utilize manpower available at the site and immediately proceed to deploy additional boats, oil booms, and material to contain spilled oil at the immediate area. The WATCH ENGINEER will proceed to call out personnel beginning with those living close to the plant to assist in these operations.

The INITIAL ACTION COORDINATOR can be:

1. Designated by management
2. Any supervisor at the scene of the spill
3. The WATCH ENGINEER in the absence of other supervision

Much depends on immediate action taken by the INITIAL ACTION COORDINATOR so that he must give the oil spill top priority to the virtual exclusion of everything else.

A relatively small quantity of spilled oil, a few gallons, if permitted to spread on water, can rapidly cover surprisingly large areas of shore line with a film. Even a thin film is a serious nuisance and may result in great expenditure of labor to clean up.

The INITIAL ACTION COORDINATOR proceeds as follows:

1. Be sure the leakage source has been cut off.
2. Delegate someone to make the statutory telephone notifications.
3. Requisition locally available manpower, on an emergency basis, to launch all available boats and get an oil boom around the spill as soon as possible, so that the oil is prevented from spreading. If contract people are unavailable, out-of-contract people will be used. Remember, this is an emergency! The following are potential sources of manpower:
 - A. Watch Engineer
 - B. Extra Operators
 - C. Maintenance men
 - D. Stores personnel
 - E. Other LILCO departments on the site
 - F. Crew of tugboat under charter to LILCO

Employ topography of the site to work in your favor to increase effectiveness of the oil boom. For example, if the spill occurs in a lagoon or canal, boom-off the outlets to contain the oil. In open water, the boom will be made fast to boats at each end.

Basic precautions in handling the oil boom are as follows:

1. Equip all personnel with life preservers.
2. When towing the empty boom to position tow from one end only, do not pull at both ends.
3. Be sure that the boom is not twisted, as oil will escape at points of twist.
4. Do not tow a boom containing oil unless absolutely necessary. If necessary to tow, proceed at a rate no greater than 30 feet per minute relative to water.

5. Do not apply hay or other absorbents if it is expected that skimmers will be used to pick up the oil.
6. Use hay or absorbents immediately if the oil cannot be contained within the boom.

E. CIVIC COORDINATOR

The CIVIC COORDINATOR (through coordination with the Government Relations, Customer Relations, Media Information, Legal and Claims Departments of the company) will implement procedures for handling customer telephone inquiries, damage surveys, dissemination of public information, claims, and information pertinent to local township and village officials. He will be available at the command post for consultation during daylight hours, when so directed by the MANAGEMENT COORDINATOR.

Normally, one of the following three persons will be contacted to serve as CIVIC COORDINATOR:

		<u>Home Tel.</u>	<u>Business Tel.</u>
Civic Coordinator	J. A. Faller	661-1975	228 -2069
Alternates	W. A. Burnich	261-7415	733-4546
	S. W. Turley	363-6281	348-6180

The CIVIC COORDINATOR will proceed as follows:

1. Obtain basic information about the extent of the oil spill, shore lines affected, manpower estimates and other pertinent information.
2. Call out his five subordinate coordinators when required (see telephone directory, next page).
 - A. GOVERNMENT RELATIONS COORDINATOR
 - B. MEDIA INFORMATION COORDINATOR
 - C. CLAIMS COORDINATOR
 - D. LEGAL COORDINATOR
 - E. CUSTOMER RELATIONS COORDINATOR
3. Assist electric plant personnel in notifying Town Supervisors and other local officials.
4. Direct the mobilization of:
 - A. FIELD SURVEY personnel
 - B. Customer Call Board personnel
 - C. Processing of customer complaints and claims.

CIVIC COORDINATORS

TELEPHONE DIRECTORY

		<u>Business Telephone</u>	<u>Home Telephone</u>
A. Public Affairs Coordinator -	H. M. Doeblor	228-2053	665-5219
Alternates -	D. J. Josberger	228-2092	265-5816
	C. H. Streater	228-2127	269-9241
B. Public Relations Coordinator -	J. Bruce	228-2308	482-8318
	J. Novarro	228-2309	929-4294
	E. Hosansky	228-2030	866-9561
C. Claims Coordinator -	A. M. Steele	228-2205	751-2188
Alternates -	J. P. Gutkes	228-2211	796-1832
D. Legal Coordinator -	H. M. Leiman	228-2150	(212) 592-0234
	R. C. Richards	228-2141	(212) 762-1947
	C. E. Rafuse	228-2009	795-5652
	E. J. Walsh	228-2147	746-2682
E. Customer Relations Coordinator			
Port Jefferson Plant	T. L. Voight	348-6314	744-1126
	T. J. Unkenholz	348-6250	661-4379
Northport Plant	V. J. Griesel	348-6283	423-8378
Glenwood Plant	J. F. Deegan	228-2709	944-8579
Far Rockaway Plant	A. Vilardi	228-2830	295-5989
E.F. Barrett Plant	L. Pinto	228-2651	489-1751
	E. Benz	228-2652	781-1147

5. Maintain a damage control map of the affected areas and transmit damage reports to the MANAGEMENT COORDINATOR.

F. GOVERNMENT RELATIONS COORDINATOR

The GOVERNMENT RELATIONS COORDINATOR and his organization will perform the following functions:

1. Coordinate communication between LILCO personnel and the representatives of Federal, State and Local governments.
2. Advise government representatives of LILCO's activities and progress.
3. Request any assistance LILCO may need in the way of manpower or equipment from government agencies.
4. Offer LILCO's assistance to government agencies, if required.

One GOVERNMENT RELATIONS COORDINATOR will be available for consultation at the command post at all times during daylight hours.

G. MEDIA INFORMATION COORDINATOR

Depending upon the severity of the oil spill, one or two personnel from the MEDIA INFORMATION DEPARTMENT will be assigned to the location where the oil spill has occurred. THE MEDIA INFORMATION COORDINATOR will be responsible for disseminating information to the public. All contacts with reporters, photographers, newspapers, radio and television will be channeled through them.

H. CLAIMS COORDINATOR

The functions of the CLAIMS COORDINATOR are as follows:

1. Receives and investigates all claims for damages or injuries associated with oil spills.
2. Disposes of all claims by settlement or rejection and defends suits at law arising from spill related damages or injuries.

3. Arranges for photographic services as required.
4. Retains independent experts necessary to the claim evaluation process.
5. Assists the Legal Department in the investigation of the incident and the collection of facts related to the question of liability.
6. Receives and negotiates all claims for reimbursement by external organizations engaged in clean up operations.

One CLAIMS COORDINATOR will be available for consultation at the command post at all times during daylight hours.

I. LEGAL COORDINATOR

The functions of the LEGAL COORDINATOR will be as follows:

1. Furnish advice relating to the legal implications of a spill, including notification requirements and, in conjunction with the Claims Department, liability.
2. Confer with the Claims Department regarding the collection and preservation of evidence.
3. Represent the Company at all proceedings and actions relating to or arising from an oil spill.
4. Review all communications, including public relations releases which describe the cause of the spill and the extent of any damage resulting from the spill.

One LEGAL COORDINATOR will be available for consultation at the command post at all times during daylight hours.

J. CUSTOMER RELATIONS COORDINATOR

The CUSTOMER RELATIONS COORDINATOR will be responsible for assessing the extent and location of fuel oil spill damage, using FIELD SURVEY and CUSTOMER CALL BOARD personnel, and for transmitting the information to the CIVIC COORDINATOR.

The CUSTOMER RELATIONS COORDINATOR and his District Office staff will proceed as follows:

1. Mobilize regular FIELD SURVEY personnel and the necessary automobiles. Personnel lists are provided in the "Emergency Restoration Handbook - Customer Relations Department". Handbooks are located at each District Office plus the District Manager and Assistant District Manager maintain updated handbooks at home.
2. Assign special FIELD SURVEY personnel to sensitive areas.
3. If necessary, activate the district office switchboard and telephone contact personnel (if out of business hours) to take customer calls. Lists of telephone contact personnel are provided in the "Emergency Restoration Handbook".
4. Assist the CIVIC COORDINATOR as required.
5. Perform normal supervisory duties, such as control of time reports, location of survey crews, etc.

K. FIELD SURVEY MEN

Duties of FIELD SURVEY MEN may vary depending on the severity and location of the spill but basically they are as follows:

1. Survey beaches for possible oil on the beach and report through the CIVIC COORDINATORS organization findings either via telephone or walkie talkies if required.
 - 1.1 This report should include the extent of the oil on shore, the exact location of the oil, access information to the beach or shoreline involved and, if possible, a determination of what equipment may be needed to clean the area.
2. Gain access information for clean up crews when private property is involved or where beach property has gates or other security provisions.
3. Notify and in some cases standby at marinas or boat

launching ramps to advise or possibly discourage the use of boats if it is determined necessary.

4. Work in conjunction with cleanup crews in those difficult access conditions or in a particular area where Customer Relations problems are apt to come up.
5. Work in conjunction with Claims or other personnel in observing oil spill complaints or possible claims against the Company.
6. Particularly difficult or potentially explosive customer problems should immediately be referred to Customer Relations supervision.

L. SPECIAL FIELD SURVEY MEN

SPECIAL FIELD SURVEY MEN will be called upon to deal with "difficult" customer contacts or to perform damage surveys in areas known to have specific or potential Customer Relations problems.

The following list will be used for contacting personnel to serve as SPECIAL FIELD SURVEY MEN and they all have company cars at their disposal.

	<u>Home Location</u>	<u>Home Telephone</u>	<u>Business Telephone</u>
W. Silkworth	Stony Brook	751-0766	Mineola - 2226
R. Stewart	Bayport	HR 2-0164	Mineola - 2228
C. Slevin	Northport	261-4717	Mineola - 2228
J. Paruolo	Farmingdale	CH 9-4524	Mineola - 2005
F. Ufer	Islip	JU 1-7594	Brentwood -6182
J. Luby	Patchogue	589-4450	Brentwood -6182
M. Tringali	Commack	543-3086	Roslyn -2722
H. Brueggman	Centereach	585-1429	Port Jeff -6316
R. Klug	Hicksville	OV1-7486	Mineola -2005

M. CONTRACTOR COORDINATOR

The CONTRACTOR COORDINATOR will call out fuel oil spill cleanup contractors so that they immediately proceed to the scene. Once they arrive on the site, he will coordinate their activities so that they are most effectively employed.

A LILCO CLEANUP ENGINEER will be assigned to direct each contractor crew and to communicate with property owners at the cleanup sites. He will submit a daily written manhour and equipment report.

PRINCIPAL CLEANUP CONTRACTORS

TELEPHONE

Clean Water Incorporated	(201) 341-3600
Marine Pollution Control	473-9132
Hitchcock Oil Pollution Systems	(203) 334-2161
Rice Tank Cleaning Service	582-4888 or 742-5123
Chesterfield Associates	288-2138
Metropolitan Petroleum Petro Chemicals Co.	(201) 434-4451
International Underwater Contractors, Inc.	(212) 885-0600

N. CLEANUP COORDINATOR

Engineers will be assigned to assist the CLEANUP COORDINATOR. Their responsibilities will be as follows:

1. Direct the disposition cleanup crews each headed by CLEANUP ENGINEERS and a foreman.
2. Requisition manpower as required from departments within the LONG ISLAND LIGHTING COMPANY.
3. Requisition equipment and materials from company stock piles and vendors.
4. Coordinate with the CIVIC COORDINATOR in establishing priorities.
5. Coordinate with the CONTRACTOR COORDINATOR so the cleanup contractors are effectively employed.
6. Maintain records of disposition of manpower, equipment and materials using reports submitted by CLEANUP ENGINEERS.

O. CLEANUP ENGINEER

The CLEANUP ENGINEER will be responsible for the following:

1. Communicate with property owners or others at the cleanup site, with respect to questions, requests for access or other matters.
2. The direction of foremen and cleanup crews.
3. Keep the CLEANUP COORDINATOR informed about progress of the cleanup.

4. Submit a daily written manpower and equipment report.
5. Administering the Management-Union contract.

P. CUSTOMER CONTACTS

The CLEANUP ENGINEER will represent LILCO in dealing with the public. During oil spill clean up operation people will approach anyone from LILCO for information or to air complaints. Remember that, to these people, the employee approached IS the Long Island Lighting Company. Needless to say, all inquiries must be handled in a pleasant, respectful and courteous manner.

The following principles will govern customer contacts:

1. Present a neat appearance. It is recognized that work clothes will have to be worn, but they should be in a reasonable condition.
2. People personally affected by the oil spill will be angry. They have a right to be. Let them blow off steam without considering that as a personal attack. Be sympathetic.
3. Always secure permission for access to private or public property before entering. Explain to property owners what you are about to do and update them frequently on the progress of the job.
4. Official inquiries from government officials relating to the immediate location will be tactfully answered. Inquiries relative to corporate policy, such as payment of damages, will be referred to the CIVIC COORDINATOR.
5. Press interviews will be tactfully declined and referred to the CIVIC COORDINATOR.

Q. DIRECTING CLEANUP CREWS

The CLEANUP ENGINEER will direct one of two types of cleanup crews:

- 1) A LILCO crew or 2) A contractor's crew.

In general, LILCO cleanup crews will be used for cleaning sandy or pebble beaches. Contractor's crews will be used for beaches, but will also be used for cleaning jetties, bulkheads, piers and other structures with their specialized cleaning equipment.

R. CONSIST OF LILCO CLEANUP CREWS

The following roster of manpower and equipment is recommended for each LILCO cleanup crew:

1. Ten (10) cleanup men
2. One (1) foreman
3. One (1) car
4. One (1) portable two way radio
5. One (1) water cooler
6. Two (2) LILCO White-Oliver backhoes with payloaders
7. Two (2) LILCO 6-8 yd. dump trucks
8. Ten (10) shovels
9. Ten (10) rakes

S. TYPES OF CLEANUP CONDITIONS

Three basic types of cleanup conditions will be encountered:

1. Sandy or pebble shores
2. Grassy shores
3. Jetties, boulders and bulkheads

The cleanup procedures have evolved from experience under actual fuel oil cleanup conditions.

T. PROCEDURE FOR CLEANING SAND OR PEBBLE SHORES

LILCO crews will generally be employed for this work, although contractors crews may be used under some conditions.

When layers of oil rest on the surface of the sand, manual cleaning shall be employed. Three to five men walk along the beach, accompanied by one payloader backhoe, raking up and shoveling the oil into the payloader bucket. When full, the payloader rides to a temporary spoil area or rendezvous with a truck waiting to carry the material away.

CAUTION: Do not run vehicles over the oil deposits or over beach grass.

Where the oil has soaked into the sand, the oily portion must be scraped off with the payloader and the depression filled by backblading with clean beach sand. Where oil soaked areas are widespread, a caterpillar propelled 20 yard pan is effective. The pan can remove as little as one or two inches from the surface and remove the load to the disposal area at high speed.

U. PROCEDURE FOR CLEANING GRASSY SHORES

Contractors crews will generally be employed. Ecology consultants recommend that oil deposited on grass is best left alone. Grassy shores expose muddy banks or flats at low tide and oil must be removed from these areas before it reaches the grass, if possible. Depending on conditions, oil booms, skimmers and straw may be used to pick up the oil. Once again, do not walk, ride on, or otherwise disturb the grass.

V. PROCEDURE FOR CLEANING JETTIES, BOULDERS AND BULKHEADS

LILCO crews will generally pick up loose oil around jetties, boulders and bulkheads as they pass them on their beach patrols. However, oil adhering to these objects will be removed by contractors crews using steam equipment. The usual procedure is to boom off the immediate area, proceed with the steam cleaning and use skimmers to recover the oil accumulation within the boom.

W. COMMUNICATING WITH THE CLEANUP COORDINATOR

The CLEANUP COORDINATOR will depend heavily on timely progress reports from the CLEANUP ENGINEER in order to efficiently dispatch equipment and manpower. All questions, requisitions and cancellations will be channeled to him via the two-way radio.

X. DAILY MANPOWER AND EQUIPMENT REPORTS

The CLEANUP ENGINEER will submit a Manpower and Equipment Report to the CLEANUP COORDINATOR every day. See sample form, next page.

Y. INDUSTRIAL RELATIONS

The CLEANUP ENGINEER will administer the Management-Union contract and will resolve local labor relations problems.

Date _____

Cleanup Engineer _____

Foreman _____

Location _____

FUEL OIL SPILL CLEAN UP

DAILY MANPOWER AND EQUIPMENT REPORT

	Company	Time Start	Time Finish	Remarks Include All Equipment outages
Employees				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
Equipment				
1				
2				
3				
4				
5				
6				

APPENDIX

TELEPHONE DIRECTORY

USEFUL NUMBERS

Rev. 7/76

Media Info.

J. Bruce
2308 - Mineola
Home 482-8318

J. Novarro
2309 - Mineola
Home 929-4294

E. Hosansky
2030 - Mineola
Home

Environmental

R. Driscoll
4137 - Hix.
Home 757-5446

J. Dalton
4702 - Hix.
Home 588-2980

Operations

M. Pollock
4013 - Hix.
Home 261-6309
Radio #070

A. L. Galloway
4474 - Hix.
Home 473-3767
Radio #080

J. B. Peck
4043 - Hix.
Home 676-6628

J. R. Gummersall
4122 - Hix.
Home 75909657

Legal

H. Leiman
2150 - Mineola
Home (212)592-0234

R. Richards
2141 - Mineola
Home (212)762-1947

C. Rafuse
2009 - Mineola
795-5652

E. Walsh
2147 - Mineola
746-2682

Management General

J. Dye
2102 - Mineola
Home 922-4742

F. Mackay
2070 - Mineola
Home 561-8084

I. Freilicher
2027 - Mineola
Home 484-2045

Underground Lines

R. Roulston
4060 - Hix.
Home 921-4228

J. Kessler
4720 - Hix.
Home 864-9441

Equipment Rental

C. Anderson
4121 - Hix.
Home 665-6596

J. Warren
4139 - Hix.
Home 764-6947

V. Carey
4141 - Hix.
Home 561-7922

Radio Repair

E. Quinn
4079 - Hix.
Home 265-6174

H. Erb
4105 - Hix.
Home Ju 8-3742

Customer Relations

J. Faller
2069 - Mineola
Home 661-1975

W. Burnich
4733 - Hix.
Home 261-7415

TELEPHONE DIRECTORY

USEFUL NUMBERS (cont'd)

Rev. 7/76

Auto Mechanic-Garage

R. Hammil (Transportation)

6165 - Brent.

Home 543-8841

Brentwood Service Section

582-9034

Hicksville Service Section

931-5800

Wrecker Radio Call Numbers

Greenlawn Wrecker 1487

Brentwood Wrecker 1485

Hicksville Wrecker 1386

Hicksville Garage 733-4146

Isles Dept. Hix.

W. Jordan

4126 - Hix.

Chesterfield Associates

(Cleanup Contractor)

288-2138

Hillside Dairy

(Oil Absorbent-Hay)

HA 7-2126

Island Helicopter

294-0355

Hitchcock Marine Pollution Control

(203) 334-2161

USEFUL NUMBERS

Cont'd.

	<u>Business Hours</u>	<u>Other Times</u>
Babylon - Supt. of Highways	957-3089	957-3089
Brookhaven-Supt. of Recreation	732-5610	732-0244
East Hampton-Police Dept.	324-0024	324-0024
Huntington - Harbor Master	421-1000	423-5655
Islip-Director of Special Services, Internal Security & Public Safety	581-2013	581-2013
Long Beach Parks and Beaches Dept. (Thomas Kiernan)	432-2606	432-3908
Riverhead - Supervisor (Allen M. Smith)	727-3200	722-3270
Shelter Island - Supervisor	749-0291	749-0435
Smithtown - Supervisor	265-2900, ext. 230	
- Supt. Parks & Beaches (days) Charles Toner	269-1122	
- Deputy, Parks & Beaches (eves) Vincent DeMoto	-	588-8566
Southampton - Town Police Dept.	728-3400	728-3400
Supervisor	283-0924	288-1048
Supt. Parks & Recreation	728-4554	

EMERGENCY POLLUTION CONTROL EQUIPMENTLONG ISLAND LIGHTING COMPANY

STATION	OIL BOOMS	ABSORBENTS	BOATS	OTHER EQUIPMENT
Barrett	5-100 feet 1-600 feet	"Fiberperl" - 10 bags "Oil Snare" - 10 boxes conweb matting - 3 forks with screening for absorbent pickup	1-13 ft. Whaler with 40 HP outboard 1 aluminum work boat pickup	1 Acme Skimmer with 100 ft. hose & 350 gal. tank
Far Rockaway	1-700 feet Neirod Slick Bar plastic oil boom, 170 feet of Grefco oil ab- sorbent boom (10 ft. lengths)	18 bags Sorbent "C" 190 bags Fiberperl 20 Grefco oil absorb- ent pillows 20 in. x 28 in.	1-12 ft. alu- minum skiff with 6 HP out- board 1-13 ft. 3 in. Whaler with 25 HP outboard	1 - Acme Skimmer with 50 ft. of dis- charge hose
Glenwood	2-400 feet 1-600 feet	5 Bales absorbent pads 11 bags Sorbent "C"	1-Boston Whaler with 25 HP outboard	10 - bales of hay
Northport	1-500 feet section plus several sections total of 500 feet (at plant) 2-1000 feet (offshore)	20 bags Sorbent "C"	1-45 ft. harbor tug with 275 HP diesel	1 - "SeaBroom" oil skimming unit with discharge hose 6 - bales of hay
Port Jefferson	1-900 feet 1-300 feet 1000 feet-Johns- Manville "Sea Serpent"	25 to 40 bags Ekoperl or Fiberperl or Strick- ite. 1600 oil absorbent squares, oil absorbent blankets	1-14 ft. Boston Whaler with 20 HP outboard 2-10 ft. aluminum boats	12 to 30 bales of hay

LILCO-LIOTA OIL SPILLAGE EQUIPMENT AGREEMENT

Coordinator for LILCO

Joseph Malone
Business 733-2057
Home: PI 1-5037

Coordinator for LIOTA

George F. Byrne
Business: 935-2400
Home: 364-9794

<u>Location of equipment (Nassau)</u>	<u>Weekdays</u>	<u>Nights & Weekends</u>
Town of Hempstead (Jamaica Bay)		
1. Island Park (LILCO) (500' Boom)	432-1400 Super	432-1400 Super
2. Cibro Petroleum (200' Boom)	432-3900 Mr. Volpe	432-0980 Mr. Storwich
3. Oceanside Exxon Oil (600' Boom)	678-1919	678-1919
4. Oceanside (Gulf) (500' Boom)	764-3488 O. Berg	661-4386
5. Oceanside - BP Oil Inc. (400' Boom)	764-6025 Mr. Riley	826-0677
6. Far Rockaway (LILCO) (700' Boom)	Super (212)327-1030	Same
7. Inwood Shell (500' Boom)	239-4437	239-4437
8. Inwood Amoco (500' Boom + (1 Skimmer))	239-5160	239-5161
9. Inwood Texaco (1000' Boom)	371-4780 Mr. Farrelly	764-2573 Same
<u>Hempstead Harbor</u>	<u>Weekdays</u>	<u>Nights</u>
10. Glenwood Landing (LILCO) (1'100' boom)	671-3100 (Super)	671-3100 (Watch Eng.)
11. Glenwood Landing-Harbor Fuel (600' boom)	676-2500 D. Beath	676-0618 E. Douglas

	<u>Weekdays</u>	<u>Nights</u>
12. Glenwood Landing (Mobil Oil) (Boom available from LILCO)	676-1248	676-1248
13. Glen Cove - Windsor Fuel Oil (100' boom)	Pl-6-5900 X-5	Same
14. Pt. Washington - Lewis Oil (800' boom)	883-1000 (Mr. Kane)	883-1000
15. B.P. Oil Great Neck (500' boom)	794-6025 (Mr. Hughes)	794-6025
<u>Oyster Bay Harbor</u>		
16. Oyster Bay - Commander Oil (800' boom)	922-7000 Barrett	922-7000 or J. Shapiro 676-9393 F. Barrett 921-7775 E. Stokking 466-3735
<u>Hicksville</u>		
1. Nassau County Road Maintenance Building 170 Cantiaque Road, Hicksville (1 skimmer mounted on trailer)	938-8110	

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

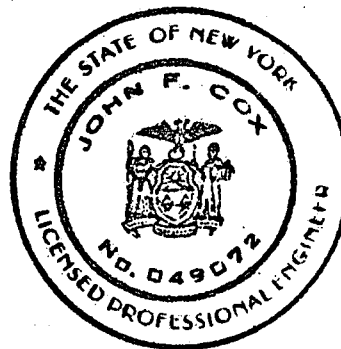
This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Glenwood Electric Generating Plant located at Glenwood Landing, Nassau County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the major substation that is located on the Glenwood Electric Generating Plant property.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

A. INTRODUCTION

The purpose of the SPCC Plan is to 1) prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF FACILITY

1. The Glenwood Electric Generating Station is located on the eastern shore of Hempstead Harbor at Glenwood Landing, Nassau County, New York. The property encompasses approximately 15 acres and has 1,100 feet of bulkhead frontage on the harbor.
2. Two fuel oil barge transfer facilities, one for No. 2 oil and one for No. 6 oil, are located along the southern end of the north-south bulkhead. No. 2 oil is stored in three (3) tanks, each having a 500,000 gallon capacity, located approximately 100 feet from the bulkhead. No. 6 oil is stored in two (2) tanks, one having a 66,700 bbl. capacity, the other having an 80,000 bbl. capacity, both located east of Shore Road, approximately 300 feet from the bulkhead.
3. The two large electric generating plant buildings that are located along the bulkhead contain boilers, turbine generators and auxiliary machinery including fuel oil and lubricating oil piping systems.
4. The two gas turbine generating units that are located on the property contain fuel oil and lubricating oil piping systems.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil tanks are constructed in conformance with the applicable A.P.I. code. The two No. 6 fuel oil tanks and their pump houses are protected by a four foot concrete dike and high level alarms that annunciate in the plant control room which is manned 24 hours per day. The three No. 2 fuel oil tanks are protected by steel dikes.

2. The terminal ends of the two fuel oil barge unloading lines are protected by valves, blind flange and drip pans. The No. 2 fuel oil line is constructed in conformance with the applicable ASME code. Budgeted for completion in 1975 is the renewal of the buried No. 6 fuel oil unloading line with a line located above grade. This will afford protection from undetected leaks.
3. Drain valves are always gate valves with a male plug on the outlet side.
4. Protection is currently being designed to prevent escape of oils from within the plant via the floor drains. The floor drainage waste stream treatment process being designed will comply with EPA chemical effluent limitations and will include oil separation. Completion of this installation is scheduled for 1977. Delays in obtaining the necessary equipment may postpone the scheduled completion until some time in 1978.
5. The six large oil-filled transformers located between the plant building and Shore Road are protected by concrete dikes.
6. The plant area is protected from unauthorized landside entry by a combination of chain link fence topped with barbed wire in critical areas and brick barrier walls in others. All entrance gates are securely locked. Effective area lighting with operating personnel in attendance on a 24 hour basis affords additional protection.

D. FUEL OIL SPILL HISTORY

1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within twelve months prior to the effective date of the regulation.
2. One fuel oil spill was experienced at Glenwood within the specified period on June 26, 1973. The spilled fuel oil originated from a ruptured fuel oil burner pump discharge line within the plant building. Approximately 10 gallons of No. 6 fuel oil were discharged into

Hempstead Harbor waters via the floor drains. Future incidents will be prevented by the installation of the floor drainage waste treatment system described in Par. C4.

A detailed description of this oil spill event is attached in a separate report under Appendix B.

E. OIL SPILL PREVENTION PROCEDURE

1. Maintenance of piping and equipment related to transfer and storage of oils will be given high priority.
2. Personnel will be adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings will be held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan will always be on the premises.
3. The SPCC Plan will be reviewed annually to determine what revisions are necessary.
4. Personnel will be in attendance at all times during any oil transfer operations.
5. Oil drain valves will always be locked when not in use, with outlet plugs replaced.
6. Entrance gates will remain locked when not in use. Area lighting maintenance will be given high priority.
7. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.

June 26, 1973

TO: Mr. M.S. Pollock

SUBJECT: Fuel Oil Spill, Glenwood Power Station

At approximately 7:15 a.m. on June 25, 1973 fuel oil was discovered in the harbor adjacent to the bulk head at Station No. 3. Approximately 10 gallons of fuel oil were discovered in the harbor. Subsequently the Coast Guard was informed and clean up operations were started immediately.

During the course of a routine inspection J. Nastasi, (assistant) Boiler Operator discovered No. 6 fuel oil in the harbor adjacent to the No. 3 Station bulk head. He immediately reported his finding to A. Cook, Watch Engineer. A. Cook then contacted the writer to report the condition. Investigation revealed that the oil was discharged into the harbor by one or more sump pumps located in Station No. 3 pump room. The writer told Mr. Cook to notify the U.S. Coast Guard and to initiate action to control the spill in the harbor. The writer immediately contacted Mr. M.S. Pollock at home; this was approximately 7:30 a.m.

Further investigation revealed that the leaky fuel oil originated from the discharge piping of the No. 40 South Fuel Oil Burner Pump. The leaking fuel oil ran into floor drains, which in turn, drained into the pump room sumps, and the sump pumps were energized on high level discharging the oil into the harbor. Efforts were made to confine the oil that remained on the floor. However, considerable oil had flowed into the drains, floor, and trenches etc. Eventually an auxiliary pump had to be installed in the pump room in order to prevent any oil from being pumped with the water. This was not accomplished before considerable flooding took place in the pump room which subsequently spread the fuel oil over the entire pump room floor area.

After the Coast Guard was notified, 12 to 8 shift personnel that were working on Unit No. 2 were dispatched to immediately launch the plant boat and to install the oil boom to contain the spill. However, this was not accomplished before some oil was carried by the tide out into the harbor. Removal of the oil was started immediately, which was contained by the boom. In addition, an oil cleaning contractor was contacted because it was realized that their services would be required.

At approximately 10:00 a.m. two representatives from the Coast Guard arrived at the plant to investigate the fuel oil spill. They observed the cleaning operations in the harbor and the source of the leak in the pump room and in addition they took approximately six colored polariod pictures. The Coast Guard representative spoke to and obtained statements from J. Nastasi, A. Cook, J. Scalice and the writer, a statement was required of J. Scalice because he received a call from the Coast Guard and gave information with respect to the source of the oil in the harbor and also the status of the leak. Copies of the written statements are attached. The Coast Guard representatives offered their assistance, if required by an outside contractor for the cleaning up operation. They indicated that they would also visit the Station in a few days to determine the progress of clean up operations particularly that portion of the spill that was contained by the oil boom. They also were very much concerned about the sump pumps in the pump room. They do not want to see the pumps energized.

At 3 p.m. Rice Cleaning Corp. arrived on the property to assist in the clean up operation. Their first assignment was to syphon the remaining fuel oil that was contained in the boom that had not been picked up by plant personnel. They were then dispatched to begin the cleaning operation in the pump room. Several days will be required until the entire pump room area has been thoroughly cleaned including all drain lines, trenches, pedestals, equipment, etc.

At approximately 9:30 a.m. a Nassau County Police Boat arrived on the scene and a lieutenant from the Nassau County Police Department also arrived by car, the writer spoke to him and mentioned that clean up operations were in progress he observed the clean up operations for sometime then left the property and indicated that the situation appeared to be under control. The Nassau County Police Boat continued to patrol the harbor to determine how much of and the location of the fuel oil that had drifted away before the oil boom had been installed. At approximately 4:15 p.m. the writer received a telephone call from a Nassau County Police Departement Lieutenant who reported that considerable oil had begun to deposit on the oil boom that is used in conjunction with Bar Beach and Hempstead Beach located on the west side of the station, and on the west shore of Hempstead Harbor. The writer indicated that this condition would be investigated and taken care of. Sometime later a representative of the Coast Guard contacted the writer and indicated they had received a report indicating the oil was located on the shore of Bar Beach and Hempstead Beach and also on the oil boom that is used in conjunction with these beaches. A telephone call was also received by the Coast Guard from the Parks Commissioner of the Village of North Hempstead, he reported similar conditions. The Coast Guard asked if any assistance would be required

in the beach clean up operation and the writer indicated that plant manpower would take care of any cleaning. Consequently the plant boat was sent to the oil retention boom at the two beaches to make a survey of the conditions and to start cleaning up operations. Results of the survey indicated that sea weed and marine grass had become coated with oil and was in contact with the oil at some locations. The station boat was dispatched to continue cleaning operations until dark and operations were to be resumed the next day.

The writer visited Bar Beach at approximately 5:45 p.m. to survey the conditions. Upon arrival at the beach I met the Commissioner of Parks and spoke with him about the oil spill situation. He indicated that there were slight deposits of oil on the beaches and that he had a pay loader and some of his personnel using an oil absorbing material for cleaning up. If it were to come to that particular discussion I indicated that this to be the case, I indicated that we would continue to clean the oil boom, today and it would continue the next day until it was thoroughly cleaned. The Commissioner indicated that he was satisfied with the clean up operation. He also indicated that the oil boom was in service for the 5th season and that he was going to ask that a replacement boom be purchased for the 1974 season. I indicated that if anything else is requested in conjunction with the clean up of the oil spill that he call me. I then walked along the beach to survey the conditions and found that there were almost no particles of oil on the beach and a very small slick at the eastern end. On Tuesday morning upon looking across the harbor I noticed that additional cleaning on the beach was in progress.

Investigation as to the source of the fuel oil leak reveals that a 1/4" Copper tubing impulse line had broken and caused the oil leak in the pump room.

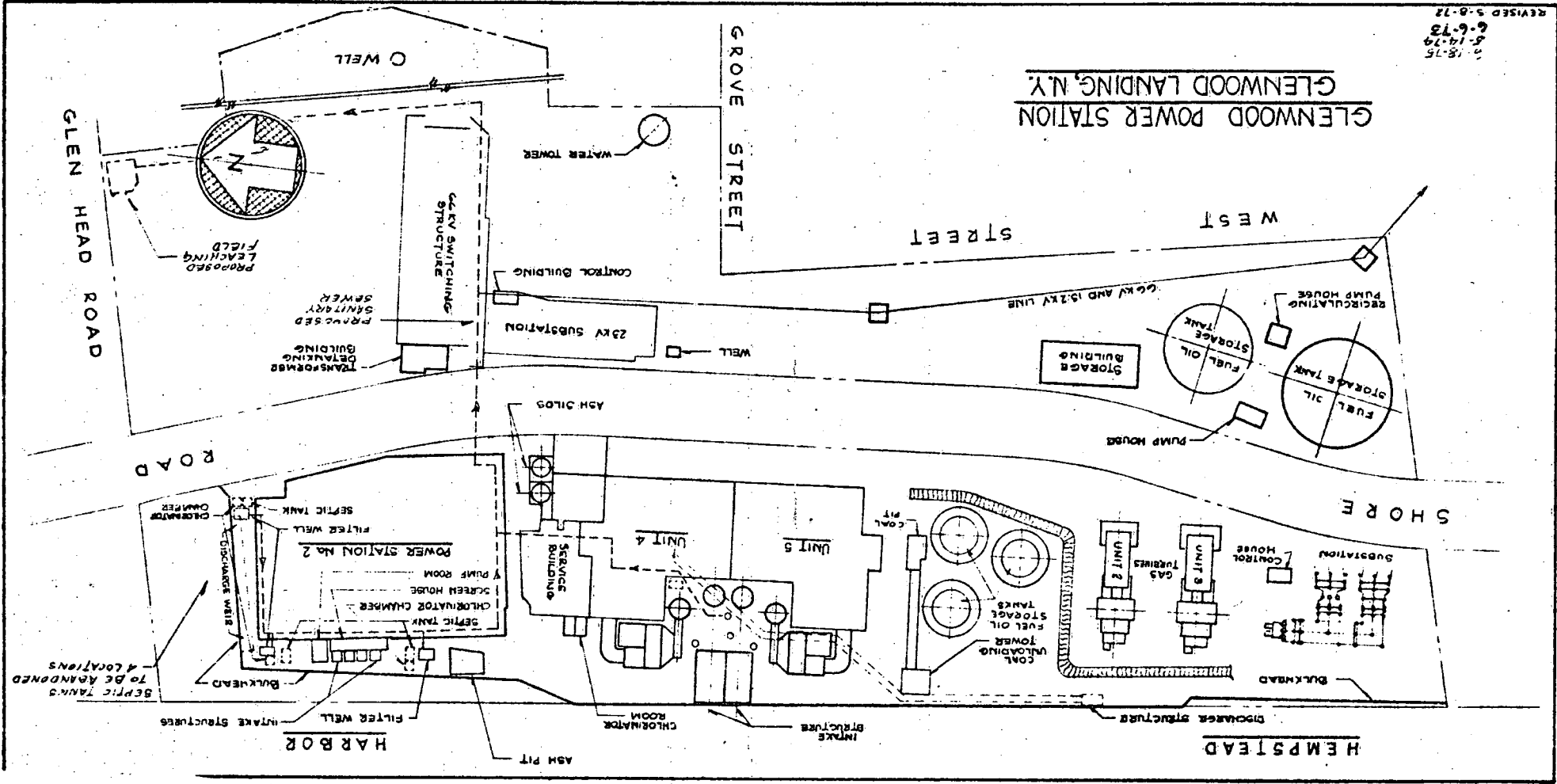
E. P. Krebs

E.P. Krebs
Plant Manager

EPK:sr

REVISED 5-8-72
 6-6-73
 5-14-74
 5-18-75

GLENWOOD POWER STATION GLENWOOD LANDING, N.Y.



SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

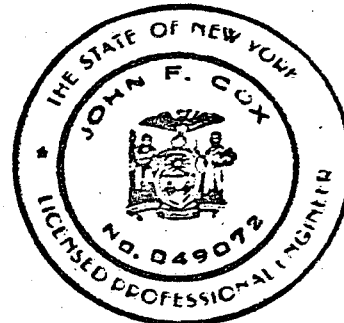
This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Far Rockaway Power Station located at Far Rockaway, Queens County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the major substation that is located on the Far Rockaway Power Station property.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

A. INTRODUCTION

The purpose of the SPCC Plan is to: 1) prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF FACILITY

1. The Far Rockaway Power Station is located on the southern shore of Mott Basin at Far Rockaway, Queens County, New York. The property encompasses approximately 22 acres and has 2,530 feet of bulkheaded frontage on Mott Basin and Bayswater Channel. A property map is attached as Appendix "B".
2. A fuel oil barge transfer facility for No. 6 oil is located along the eastern end of the east-west bulkhead. The main fuel oil storage tank, having a capacity of 47,600 barrels, is located 200 feet south of the end of Bayswater Channel. A day fuel oil tank holding 100,000 gallons is located 80 feet to the west of Bayswater Channel.
3. The large electric generating plant building that is located along the Mott Basin bulkhead contains a boiler, turbine-generator and auxiliary machinery including fuel oil and lubricating oil piping systems.
4. A major electric substation is located in the north east corner of the property.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil tanks are constructed in conformance with the applicable A.P.I. code. The main fuel oil tank is set 5 feet below grade to 15 feet above grade elevation and is completely surrounded by sloping earth wall. The day tank has three remote level indicators in the plant control room and both tanks have high level alarms (95% and 98% full) in the control room which is manned 24 hours per day.

C. (cont'd.)

2. The fuel oil pump house is located 8 feet below grade and is protected by a liquid level alarm in the control room.
3. The terminal end of the fuel oil barge unloading line is protected by valves, blind flange, drip pan and a concrete sump.
4. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code. Above ground piping, running alongside plant roads, is protected by steel guard rails.
5. Drain valves are always gate valves with a male plug on the outlet side.
6. A 3,000 gallon underground waste oil holding tank is located west of the plant building. Waste lubricating oil is deposited in this tank, which is periodically emptied by an oil reclaim contractor.
7. Protection is currently being designed to prevent escape of oils from within the plant via the floor drains. The floor drainage waste stream treatment process being designed will comply with EPA chemical effluent limitations and will include oil separation. Completion of this installation is scheduled for 1977. Delays in obtaining the necessary equipment may postpone the scheduled completion until some time in 1978.
8. The plant area is protected from unauthorized landsite entry by a combination of chain link fence topped with barbed wire. All entrance gates are locked. Effective area lighting with operating personnel in attendance on a 24 hour basis affords additional protection.
9. Security Guard Service is maintained 3 PM to 11 PM, seven days per week.

D. FUEL OIL SPILL HISTORY

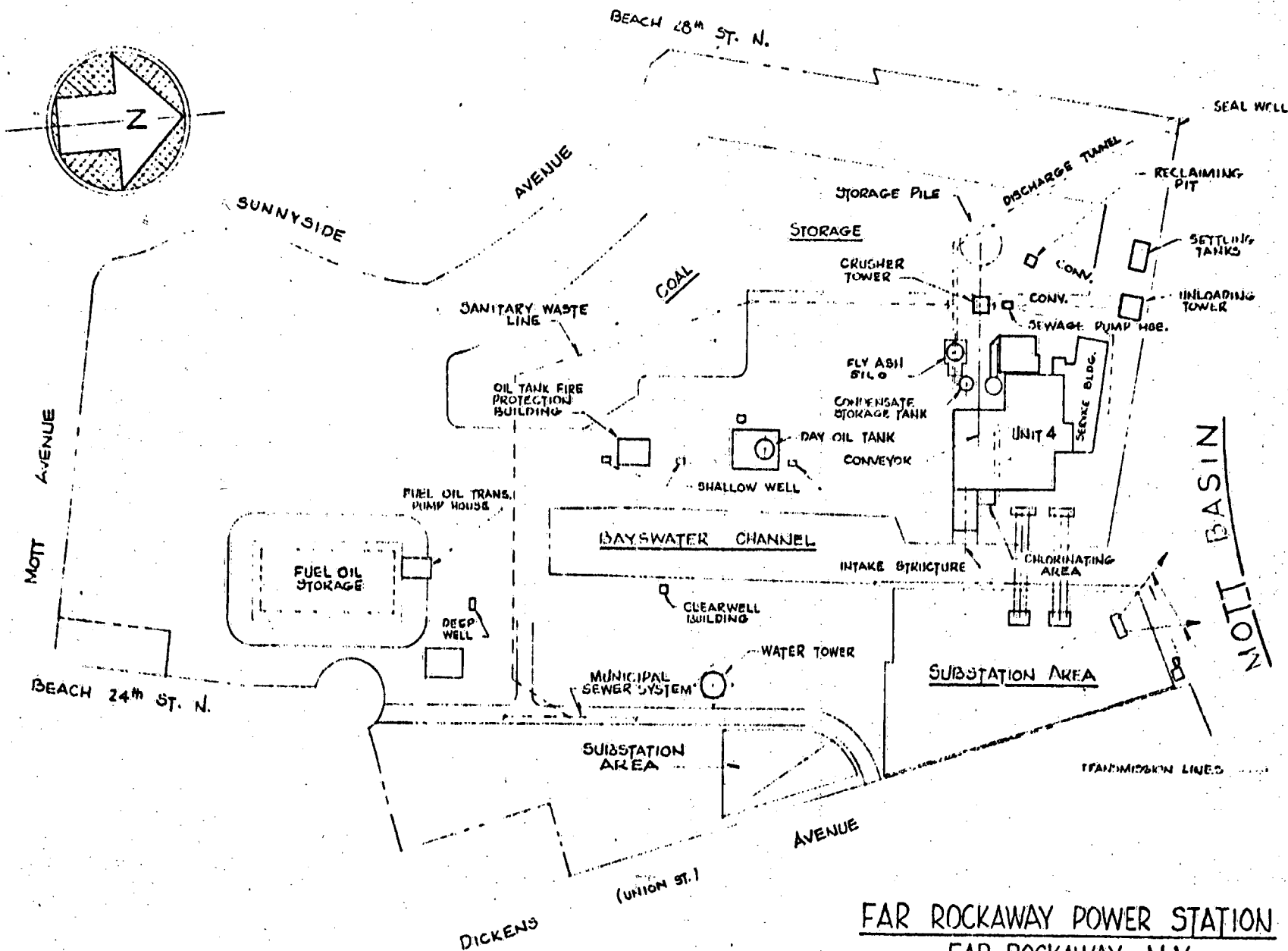
1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within twelve months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

E. OIL SPILL PREVENTION PROCEDURE

1. Maintenance of piping and equipment related to transfer and storage of oils is given high priority.
2. Personnel are adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings are held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan is always on the premises.
3. The SPCC Plan is reviewed annually to determine what revisions are necessary.
4. Personnel are in attendance at all times during any oil transfer operations.
5. Oil drain valves always have outlet plugs and critical valves are locked.
6. Entrance gates remain locked when not in use. Area lighting maintenance is given high priority.
7. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.



FAR ROCKAWAY POWER STATION
FAR ROCKAWAY, N.Y.

NOTE:

UNIT Nos. 1, 2 & 3 HAVE BEEN REMOVED

5-14-74
 REVISED 6-6-73

APPENDIX "B"

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

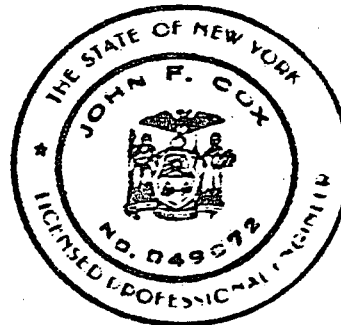
This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's E. F. Barrett Power Station located at Island Park, Nassau County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the major substation that is located on the E.F. Barrett Power Station property.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

A. INTRODUCTION

The purpose of the SPCC Plan is to: 1) Prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF THE FACILITY

1. The E. F. Barrett Power Station is located on a 125 acre site just north of the Village of Island Park, Nassau County, New York. The site is bordered on the east and south by Long Beach Road, on the west by Hog Island Channel and on the north by Daly Boulevard. There are approximately 4,500 feet of shore line on Hog Island Channel, Barnum's Channel and Simonson's Channel. A property map is attached as Appendix "B".
2. Two fuel oil barge transfer facilities, one for No. 2 oil and one for No. 6 oil are located at the western end of Barnum's Channel. A fuel oil truck transfer facility for No. 2 oil is located 100 feet south of Barnum's Channel. Another No. 2 oil truck transfer facility is located 100 feet east of Simonson's Channel. No. 2 oil is stored in three tanks having 100,000 gal., 1,000,000 gal., and 2,000,000 gal. capacities. No. 6 fuel oil is stored in five tanks each having a 96,000 bbl. capacity.
3. The large steam electric generating plant building that is located along the southern shore of Barnum's Channel contains boilers, turbine generators and auxiliary machinery including fuel oil and lubricating oil piping systems.
4. The three gas turbine electric generating plants that are located on the property contain fuel oil and lubricating oil piping systems.
5. A major electric substation is located on the northern portion of the site.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil storage tanks are constructed in conformance with the applicable A.P.I. code. The five No. 6 fuel oil tanks are protected by steel or earthen dikes that will contain the entire contents of the tanks. All five tanks have remote level indicators and high level alarms in the plant control room which is manned 24 hours per day. The three No. 2 fuel oil tanks are protected by steel dikes that will contain the entire contents of the tanks.
2. The terminal ends of the two fuel oil barge unloading lines are located over a sand filled wharf and are protected by valves, blind flanges and drip pans.
3. The two fuel oil truck unloading sites are covered with bluestone which restrains the spread of spilled oils.
4. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code. Fuel oil piping running alongside plant roads is protected by guard rails.
5. Lubricating oil tanks within the steam plant building are protected by concrete curbs. Drains within the curbed areas discharge into waste oil storage tanks, which are routinely pumped out for disposal into fuel oil tanks.
6. Protection is currently being designed to prevent escape of oils from within the plant via the floor drains. The floor drainage waste stream treatment process being designed will comply with EPA chemical effluent limitations and will include oil separation. Completion of this installation is scheduled for 1977. Delays in obtaining the necessary equipment may postpone the scheduled completion until sometime in 1978.
7. The plant area is protected from unauthorized land-site entry by chain link fence topped with barbed wire. All entrance gates are locked. Effective area lighting with operating personnel in attendance on a 24 hour basis affords additional protection.

D. OIL SPILL HISTORY

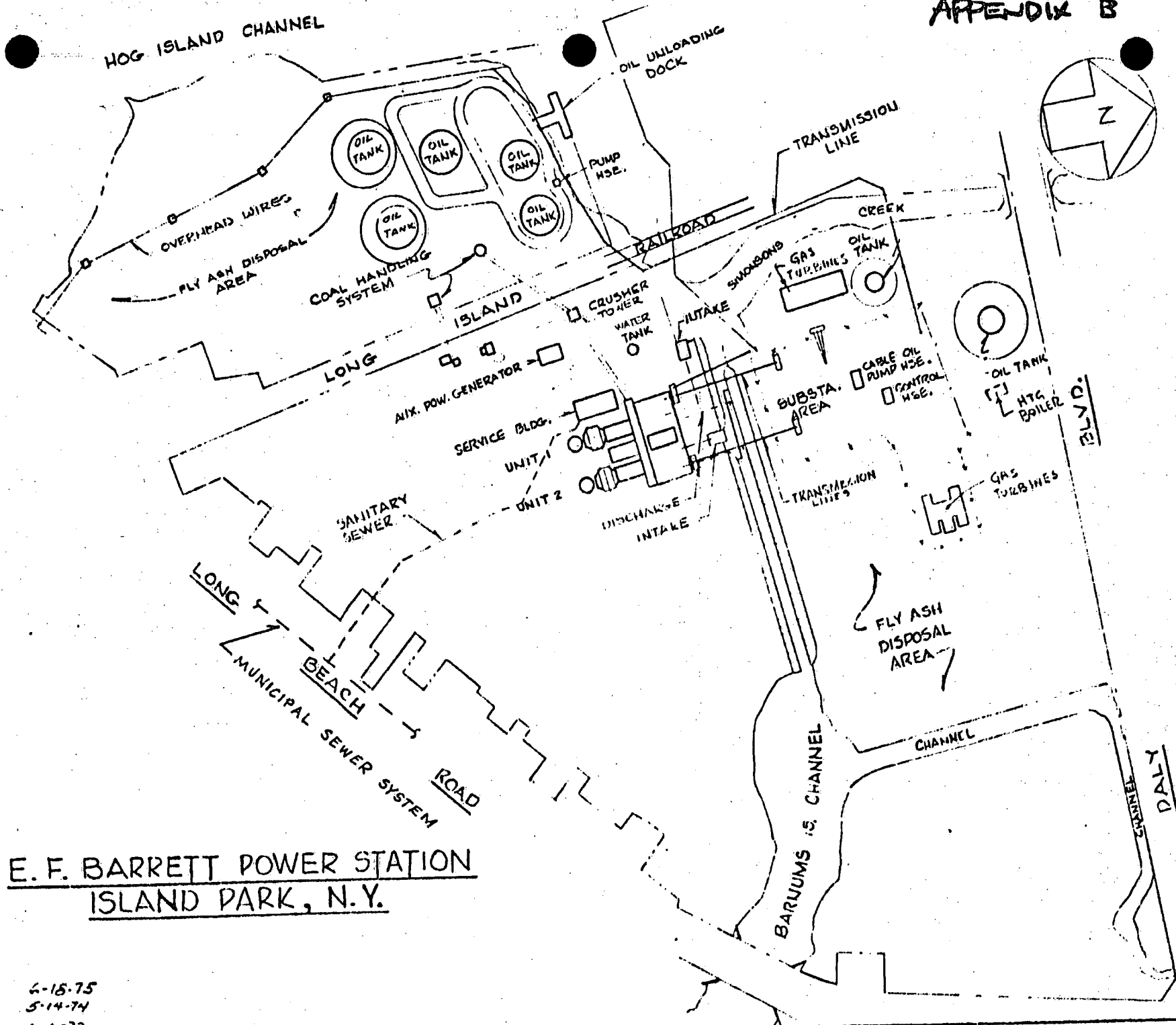
1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within 12 months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

E. OIL SPILL PREVENTION PROCEDURE

1. Maintenance of piping and equipment related to transfer and storage of oils is given high priority.
2. Personnel are adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings are held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan is always on the premises.
3. The SPCC Plan is reviewed annually to determine what revisions are necessary.
4. Personnel are in attendance at all times during any oil transfer operations.
5. Oil drain valves will always have outlet plugs and critical valves are locked.
6. Entrance gates remain locked when not in use. Area lighting maintenance is given high priority.
7. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.



E. F. BARRETT POWER STATION
ISLAND PARK, N.Y.

6-18-75
5-14-74

REVISED 6-6-73

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Port Jefferson Power Station located at Port Jefferson, Suffolk County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

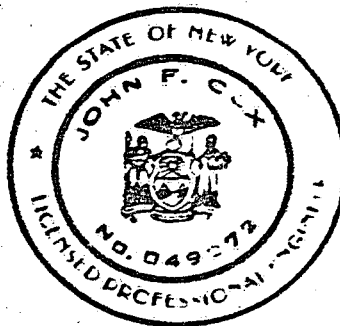
This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the major substation that is located on the Port Jefferson Power Station property.

Dated: _____

July 13, 1976

Professional Engineer's Certification



John F. Cox

A. INTRODUCTION

The purpose of the SPCC Plan is to: 1) prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF THE FACILITY

1. The Port Jefferson Power Station is located on a 64 acre site in the Village of Port Jefferson, Suffolk County, New York. The site has 900 feet of frontage on the west shore of Port Jefferson Harbor and is irregular in shape extending back to North Country Road. A T-shaped, reinforced concrete wharf extends 170 feet from the bulkhead line.
2. Two fuel oil transfer facilities, accommodating barge or tanker deliveries of No. 6 oil, are located on the wharf. One fuel oil truck transfer facility for No. 2 oil is located 400 feet from the bulkhead line, another fuel oil truck transfer facility for No. 2 oil is located 1900 feet from the bulkhead line. No. 6 fuel oil is stored in four tanks having capacities of 80,000 bbl., 100,000 bbl., 153,000 bbl., and 310,000 bbl. No. 2 oil is stored in two tanks having capacities of 100,000 gallons and 10,000 gallons.
3. The large steam electric generating plant building that is located about 150 feet from the shore contains boilers, turbine generators and auxiliary machinery including fuel oil and lubricating oil piping systems.
4. The gas turbine electric generating plant that is located on the property contains fuel oil and lubricating oil piping systems.
5. A major electric substation is located on the western portion of the site.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil storage tanks are constructed in conformance with the applicable A.P.I. code. The four No. 6 fuel oil tanks are protected by earthen dikes that will contain the entire contents of the tanks. The 100,000 gallon No. 2 oil tank is protected by an earthen dike that will contain the entire contents of the tank.
2. The terminal ends of the two fuel oil unloading lines on the wharf are protected by valves, blind flanges and drip pans.
3. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code.
4. Most lubricating oil tanks within the steam plant building are protected by concrete curbs.
5. Waste oil is dumped into drums which are routinely emptied by a waste oil disposal contractor.
6. Protection is currently being designed to prevent escape of oils from within the plant via the floor drains. The floor drainage waste stream treatment process being designed will comply with EPA chemical effluent limitations and will include oil separation. Completion of this installation is scheduled for 1977. Delays in obtaining the necessary equipment may postpone the scheduled completion until sometime in 1978.
7. The plant area is protected from unauthorized land-site entry by chain link fence topped with barbed wire. All entrance gates are securely locked. Effective area lighting with operating personnel in attendance on a 24 hour basis affords additional protection.

D. OIL SPILL HISTORY

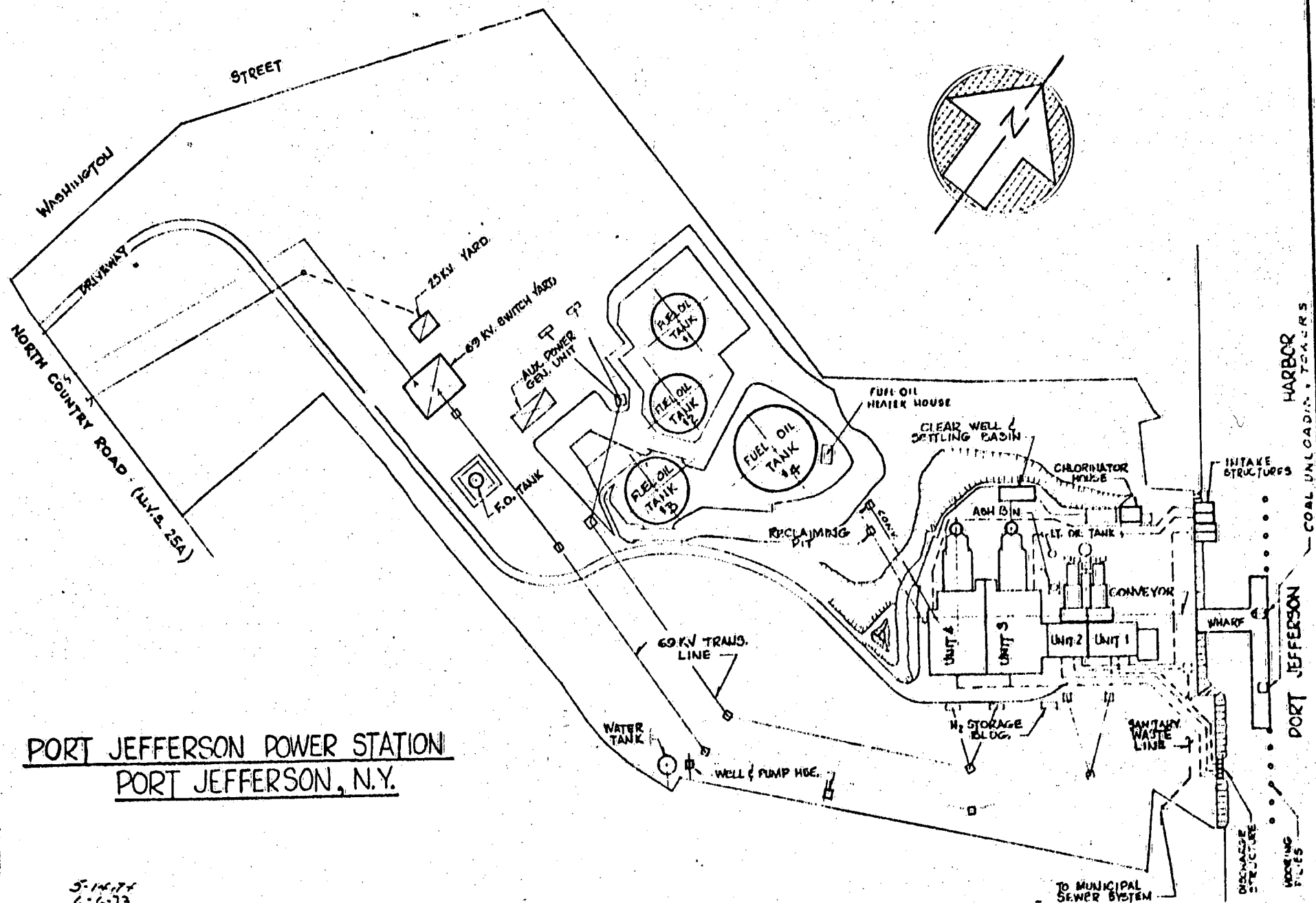
1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within 12 months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

E. OIL SPILL PREVENTION PROCEDURE

1. Maintenance of piping and equipment related to transfer and storage of oils will be given high priority.
2. Personnel will be adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings will be held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan will always be on the premises.
3. The SPCC Plan will be reviewed annually to determine what revisions are necessary.
4. Personnel will be in attendance at all times during any oil transfer operations.
5. Oil drain valves will always have outlet plugs and critical valves will be locked.
6. Entrance gates will remain locked when not in use. Area lighting maintenance will be given high priority.
7. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.



PORT JEFFERSON POWER STATION PORT JEFFERSON, N.Y.

5-14-74
 6-6-73
 REVISED 5-8-71

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Northport Power Station, located at Northport, Suffolk County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

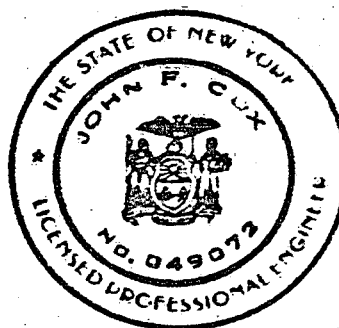
This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the major substation that is located on the Northport Power Station property.

Dated:

July 13, 1976

Professional Engineer's Certification



John F. Cox

A. INTRODUCTION

The purpose of the SPCC Plan is to 1) Prevent the discharge of oil into navigable water and 2) Minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF FACILITY

1. The Northport Power Station is located on the shore of Long Island Sound approximately two miles north of Northport Village, Suffolk County, New York. The property encompasses approximately 265 acres and has 10,600 feet of frontage on Long Island Sound, the intake lagoon and the discharge lagoon. The property is bounded on the south by Eaton's Neck Road, on the west by Asharoken Avenue, on the north by Long Island Sound and on the east by residential properties. A property map is attached as Appendix "B".
2. An offshore fuel oil tanker transfer facility for No. 6 oil is located in Long Island Sound, 10,000 feet north of the plant. Four 322,000 barrel and one 650,000 barrel storage tanks for No. 6 oil are located along the southern boundary of the site. A 24" underwater pipe line connects the offshore unloading platform with the storage tanks. There are three 14,000 barrel and two 5,000 barrel No. 6 oil day tanks located along the east shore of the intake lagoon. An emergency fuel oil barge unloading facility for No. 6 oil is located on the east shore of the intake lagoon.
3. Three 42,000 gallon and one 100,000 gallon storage tanks for No. 2 fuel oil are located along the east shore of the intake lagoon. One 10,000 barrel tank containing No. 2 oil (purge fluid) is located near the main oil storage tanks.
4. The large Electric Generating Plant building that is located east of the intake lagoon, contains boilers, turbine-generators and auxiliary machinery including fuel oil and lubricating oil piping systems.
5. A major Electric Substation is located just east of the generating plant building.
6. The gas turbine electric generating plant that is located on the property contains fuel oil and lubricating oil piping systems.

C. OIL SPILL PREVENTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil tanks are constructed in conformance with the applicable A.P.I. Code and are protected by earth or concrete dikes designed to contain the entire contents.
2. The fuel oil pump houses are located inside the earth dikes.
3. All of the fuel oil tanks have remote level indicators and high level alarms in the plant control room, which is manned 24 hours per day. The day fuel oil tanks have automatic fill valves that shut off when a high tank level is reached.
4. The offshore fuel oil unloading platform is set back 20 feet, a greater than usual distance, from the breasting platform fenders. This was done to provide maximum protection from accidental impact from berthing tankers.
5. The 2'-6" thick concrete unloading platform is protected by curbing, an oil sump having a high level alarm, and a sump pump discharging into the fuel oil unloading line.
6. Transfer of fuel oil at the unloading platform is accomplished without the use of hose by means of the two hydraulically controlled all metal unloading arms.
7. The underwater pipe lines are encased in concrete and buried in a trench.
8. A wired communications system links the unloading platform control house, the unloading arm control console and the ship's unloading manifold. Each station has an audible alarm circuit to permit an individual at one station to attract the attention of an individual at the other station.
9. An emergency alarm system employing a rotating orange emergency light and loud solid state sirens can be actuated from the control house, the unloading arm console and the ship's manifold.

10. Drift measuring devices on each breasting platform actuate an alarm at the control house when the moored vessel moves one foot from the platform
11. The Northeast Weather Service supplies continuous weather communications to the plant control room. Two-way hand held and stationary radio communication is maintained between the plant control room and the unloading platform.
- 12.. The terminal end of the emergency fuel oil barge unloading facility is protected by valves, blind flange and a properly sized spill containment.
13. Oil drain valves are always gate valves with a male plug on the outlet side.
14. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code.
15. Lubricating oil tanks located within the generating plant building are protected by concrete curbs. Drains within the curbed areas discharge into waste oil storage tanks, which are routinely pumped out for disposal as boiler fuel. The waste oil tanks have high level alarms in the plant control room.
16. Protection is currently being designed to prevent escape of oils from within the plant via the floor drains. The floor drainage waste stream treatment process being designed will comply with EPA chemical effluent limitations and will include oil separation. Completion of this installation is scheduled for 1977. Delays in obtaining the necessary equipment may postpone the scheduled completion until sometime in 1978.
17. The plant area is protected from unauthorized landsite entry by chain link fence topped with barbed wire. The main entrance gate is manned 24 hours a day by Guard Service personnel. All other gates are securely locked. Effective area lighting with operating personnel in attendance on a 24 hour basis affords additional protection.

D. FUEL OIL SPILL HISTORY

1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within twelve months prior to the reference date of the regulation.
2. A fuel oil spill took place on April 10, 1973, at this location, during uncoupling operations between the offshore unloading platform and the M/V CAMELLIA. Long Island Lighting Company paid a \$3,500 penalty and a \$2,013 cleanup assessment to the U. S. Coast Guard in compensation for this incident. The Coast Guard citation is attached as Appendix "C".
3. A fuel oil spill which occurred on July 5, 1973, during unloading operations at the offshore platform involving the S/S NEPCO FRIENDSHIP, was the result of the rupture of the connection between a loading arm and the ship's manifold. This happened because of the excessive drift of the moored tanker during the violent winds of a thunderstorm. A major clean up effort ensued, which is fully described in the report attached as Appendix "D". Operational and equipment improvements resulting from the analysis of the incident are described in the report attached as Appendix "E".



APPENDIX "B"

5-11-76
5-18-74
6-6-73

MAILED 3-8-77



DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS:
Commander (nep)
Third Coast Guard District
Governors Island
New York, New York 10004
(212) 264-4916

5504
03-355/73nep
2 July 1973

Long Island Lighting Co.
Northport Power Station
Waterside Avenue at Eatons Neck Road
Northport, New York 11768

Gentlemen:

A report has been received by this office that oil in harmful quantity was allegedly discharged into the waters of the United States on 10 April 1973 from your facility at Northport, New York.

The spill was discovered by a Coast Guard helicopter on a routine patrol of Long Island Sound. Upon investigation it was found that the spill occurred while uncoupling operations between your facility and the M/V CAMILLA were being conducted at your off-shore platform. The oil was spilled when a loading arm on your off-shore platform was raised and swung onto the dock before it was blocked off, which allowed the oil contained within the loading arm to be discharged into Long Island Sound.

The Federal Water Pollution Control Act, as amended in 1972, prohibits the discharge of oil in harmful quantities into or upon the waters of the United States, including the territorial sea. Section 311 of the Act states, in part, that the owner or operator of a facility or vessel from which oil is discharged shall be assessed a civil penalty of not more than \$5,000.00 for each offense. The Act states further that no penalty may be assessed before the owner or operator is given notice and an opportunity for a hearing on such charge. A written statement may be submitted in addition to or in lieu of the hearing.

In determining the amount of the penalty to be assessed, or agreed to in compromise, the Act provides that the appropriateness of the penalty to the size of the business of the owner or operator charged, the effect on the owner or operator to continue in business, and the gravity of the violation shall be considered. Such information should be presented at the hearing or in any written statement submitted.

If you prefer, you may waive your statutory rights and close this case by forwarding your check or money order, payable to the U. S. Coast Guard, in the amount of \$3,500.00 to the above address, attention Collection Clerk.

Oil Spill at Tanker
NEPCO FRIENDSHIP
July 5, 1973
Northport Power Station
Electric Production
Summary Report

SUMMARY

On Thursday, July 5th, at approximately 7:20 a.m., a heavy oil spill occurred at the Northport Station off-shore unloading platform during the unloading of a tanker. Failure of both connections at the tanker manifold were the result of a sudden violent storm accompanied by high winds with velocities in excess of 60 miles per hour. The tanker, floating high in the water with extensive side surface exposed, was pushed out from its berth by the high broadside winds. None of the tanker's eighteen 8 inch mooring lines parted, but the tanker moved out from the platform as a result of the stretching of these lines, possibly the slipping of the tanker's winches under the strain and the takeup of the normal slack in the mooring chains.

Perhaps the one single factor contributing to the spill was the lack of advanced information on the storm winds. LILCO's operating instructions are to stop pumping and clear the mooring if winds approaching 45 mph are anticipated. Neither NE Weather Service or the US Weather Bureau National Weather Service, both subscribed to by the company, gave any warning of strong wind conditions. The Red Star tug working the ship at the platform had no Marine forecast of strong winds and a later check indicated that the nearby Coast Guard Station at Eaton's Neck had no advance warning.

Immediately after the failure, at approximately 7:20 a.m., a large portion of the spill was carried eastward by the wind and tide. Confinement of this portion was impossible due to wind and seas. Shortly after the storm, the sea calmed and the winds subsided. There was still oil running off the deck of the tanker that congregated in the area of the platform. An oil boom was placed ~~entirely~~ around the ship and platform ^{starting} at approximately 8:00 a.m. and cleanup preparations were immediately begun in the area of the platform. LILCO engaged a helicopter for aerial surveillance but could not confirm the Coast Guard report of oil to the east. Inspection did, however, locate a considerable oil slick between Eaton's Neck and the platform which was moving with the then rising tide. Aerial survey, the following morning, revealed large scattered flotations of heavy oil off shore between Stony Brook Harbor and Eaton's Neck that were starting to land on some of the beach areas. Each successive tide brought more oil onto the beaches. The lack of wind and calm seas kept much of the oil in scattered areas in the water moving back and forth along the beaches with the tides. By Sunday morning, a majority of the oil had beached itself. Only small gasoline-like slicks and a few heavy spots remained in the water.

Cleanup operations started shortly after the spill occurred on Thursday, July 5th, and by Monday, July 9th, it was estimated that about 90% of the oil was cleaned up with the waters relatively clear. Sufficient crews and equipment will continue on the remaining clean up until the work is complete.

A contractor specializing in spill cleanup on the water was engaged from the Bridgeport Harbor, Connecticut area, to handle the heavy accumulations at the platform, the intake basin at the plant and large areas floating in the Sound.

A contractor specializing in small clean up work on both water and shore areas was engaged from the Port Jefferson area and assigned to rapidly moving slicks that threatened harbor inlets and areas affected within Stony Brook Harbor.

A Long Island contractor specializing in beach cleanup was engaged and assigned primarily to Asharoken Beach. His expertise was also used in establishing proper clean up methods with LILCO crews and State and Township personnel working on the beaches.

Additional personnel and equipment as required were obtained from various departments of the Company to sufficiently cover

4

all major areas affected.

At the request of LILCO, N. Y. State Parks Department personnel and equipment were assigned to the Sunken Meadow State Beach area, and some other affected areas, Township personnel responded.

Conditions Before Incident

The 50,000 ton class, Nepco FRIENDSHIP, carrying a cargo of some 260,000 barrels of residual oil arrived at our offshore facility at 10:20 a.m. on July 4, 1973. This was not the first occasion that this ship docked at our facilities. The tanker was secured to its berth by normal procedure without incident by LILCO personnel aboard the Red Star Tug and from the platform. Ten, 8 inch lines were secured to the six sea buoys. Four spring lines to the platform, two from the stern and two from the bow, were used in addition to breasting lines.

Lines used for mooring were polypropylene, or comparable material which are considered the most acceptable type and now standard on many ships. Although our standard calls for steel breasting lines, as opposed to manila which were commonly used when operation of the platform was first initiated, with the advent of polypropylene lines and several experiences of snapping of steel lines at our platform, polypropylene has been accepted even though our

standards were never re-written. The use of polypropylene has been generally accepted as an improved mooring line in the shipping industry and the majority of the ships now docking at our facility are so equipped.

The weather was cloudy, temperature 74°F with winds 10-15 MPH from the south. The weather remained calm with winds 10 to 15 MPH until the time the storm arrived. At the time of the storm approximately one-third of the cargo had been delivered and the ship had risen nine feet in the water to expose more side surface to the weather.

Incident

At approximately 7:20 a.m. Thursday, July 5, 1973, a severe thunder storm accompanied by high winds struck the area. The wind came from the southwesterly direction and was in excess of 60 MPH according to outside sources. The Control Operator in the plant noted wind velocities of 60 MPH at 7:30 a.m. on the instantaneous indicator in the Control Room. The wind pushed the ship northerly away from the breasting platform to a point where the unloading arms became overextended and ultimately broke loose from the ship's discharge manifold. The break occurred in both 12" lines at the adapter spool piece used to match the wide range of flange

diameters and bolt circles encountered on different tanker flanges to the LILCO unloading arm flange. These spool pieces are designed to fail before collapse of the dockside towers.

Considerable oil was discharged overboard before the shipboard valves could be closed by the chief mate of the tanker who was standing at the oil manifold at the time. The LILCO operator on the mooring platform at the time of the incident secured the valves on the arms to prevent any back flow from the arms.

The Coast Guard at Eaton's Neck and the Town of Huntington were notified immediately by Plant Supervisors. The Coast Guard Base at New Haven (Ed Seagrave) was notified soon afterward.

Clean Up

Thursday, July 5th, when the weather and sea were sufficiently calm after the storm, a slick boom was deployed to contain the remaining oil running off the ship and congregating around the platform. Additional tugs were requested from Red Star to assist in the operation at the platform. Salt hay and barrels were brought out by our boat, the Northport Light, for cleanup operations. The Hitchcock Company from Connecticut, specialists in water clean up were contacted and requested on the job. The

Chesterfield Company, a Long Island Company, specializing in water front cleanup was called and told to gear up for assignment early Friday.

At approximately 10 a.m. a check with the New Haven Coast Guard revealed that a slick one and one-half miles long by 200 to 300 yards wide was proceeding easterly with the tide. No other sighting of oil, except in the area of the platform, was reported at this time.

Arrangements were made in the morning to obtain a helicopter for our own aerial surveillance and a survey of all the suspect areas was completed by early afternoon.

The beach front from two miles east of Mt. Sinai to the easterly shore of Lloyd's Neck and out as far as Stratford Shoals was surveyed. Wind at this time was approximately from the north and the tide had been rising for about two hours. This survey revealed no oil east of the platform. Heavy oil existed around and west of the platform in a string as far west as Eaton's Neck. No oil was noted on the beaches at this time or beyond the tide rip at Eaton's Neck.

The New Haven Coast Guard was called around Noon time and asked to re-confirm their sighting of the oil slick. They said they had spotted it off Sunken Meadow, east of the platform in their early morning sighting, rather than further east as originally reported.

Friday, July 6th

There were no reports of oil on the beaches. Customer Relations teams were set up for survey work. They started to patrol the beaches, in suspect areas, at 9 a.m.

Following this, an over-all coordinator was set up and a helicopter ordered to the Northport Plant for survey work.

The first helicopter survey on Friday morning indicated heavy broken flotations of heavy oil. Accumulations were in the water area between Eaton's Neck and the Stony Brook Harbor inlet. Shortly before Noon these accumulations started hitting the beaches with wind direction and rising tides aggravating the situation.

The offshore cleanup contractor arrived and was working by approximately 6 a.m. in the area around the platform. The

beach cleanup contractor was working on Asharoken beach around Noon time. Pollution Control of Port Jefferson, a small water and beach cleanup contractor, was engaged for the Stony Brook and Port Jefferson areas.

Manpower and equipment requested from other areas of the Company started arriving on the site Friday afternoon and worked until dusk, taking advantage of the falling tide conditions. Further work schedules were geared to falling tide conditions as no effective clean up could be accomplished at high tide.

On Friday afternoon representatives of the following interested parties were at the Plant to discuss and inspect the incident.

U. S. Coast Guard

New England Petroleum & their Insurance carriers

Town of Huntington

Public Service Commission

In addition to the above, contact was maintained with various local town and state officials.

Assisting in the clean up, surveillance and contact operation were LILCO personnel from -

10

- All Electric Production Facilities
- Underground Lines
- Underground Distribution
- Construction
- Maintenance Services
- Transportation
- Overhead Lines
- Customer Relations
- Engineering (Environmental)
- Claims
- Legal

Saturday, July 7th

At approximately 5 a.m., a walking survey of all the beaches was made by Customer Relations and supplemented by an aerial survey of beach and water conditions at 6 a.m.

At 6 a.m. expanded cleanup crews and additional equipment were on hand for clean up work. These crews were deployed to the most critical and sensitive areas. State and Town crews were at work on their appropriate public beach areas, as agreed to in our arrangements made the prior day. The State and Town crews, however, were not at work until after 9 a.m.

The aerial surveys at 6 a.m. and repeated throughout the day were more encouraging. Large flotations had broken up and more oil was on the beach. There were more small spreads of oil in the water rather than the heavy accumulations seen the previous day. Clean up continued until high tide conditions dictated

releasing the crews.

During the early morning hours a slick had entered Stony Brook Harbor on the rising tide and caused this to be a sensitive area throughout the day. Conditions in the harbor - mainly the tall grass and lack of exposed beach area - made the clean up impractical at this time.

Additional crews and equipment were called in for Sunday work.

Sunday, July 8th

The initial aerial survey on Sunday morning was again encouraging in that less oil was apparent in the waters.

Crews were deployed at 7 a.m. in the more critical areas.

Conditions had improved in that most of the beaches were usable throughout the day. Some light slick that had worked its way to areas off Port Jefferson were assigned to Pollution Control for clean up and no significant beach contamination has resulted in this area.

During the day, two ecologists from Hofstra University consulted with us at our request. They inspected the wetland areas in

Stony Brook Harbor and agreed that there was very little we could do in the grassy areas and that the ecological damage was not severe. Skimming operations were employed by the outside contractors in this area as well as the inlet to the Nissequogue River and Port Jefferson harbor inlet to accumulate floating slicks outside of the grassy areas.

Monday, July 9th

Additional crews and equipment were secured for Monday and it is estimated that by Monday evening the large majority of the spill was under control. The remaining ten percent will take considerable time and maximum effort will continue until the problem is resolved.

Surveillance will continue east of Port Jefferson based on a few reports of oil slicks and spots on beaches as far east as Northville. Small, light gasoline-type slicks were confirmed by our aerial surveillance on Tuesday.

A meeting was held on Wednesday, July 11th, with Mueser, Rutledge, Wentworth and Johnston, designers of the offshore platform to review the present facilities. They were requested to make recommendations regarding any modifications that would circumvent similar incidents in the future.

Additional Reports

Reports by Customer Relations and Environmental Engineering covering their participation in the incident have been prepared.

Attachments

Photographs

Maps

Weather Reports

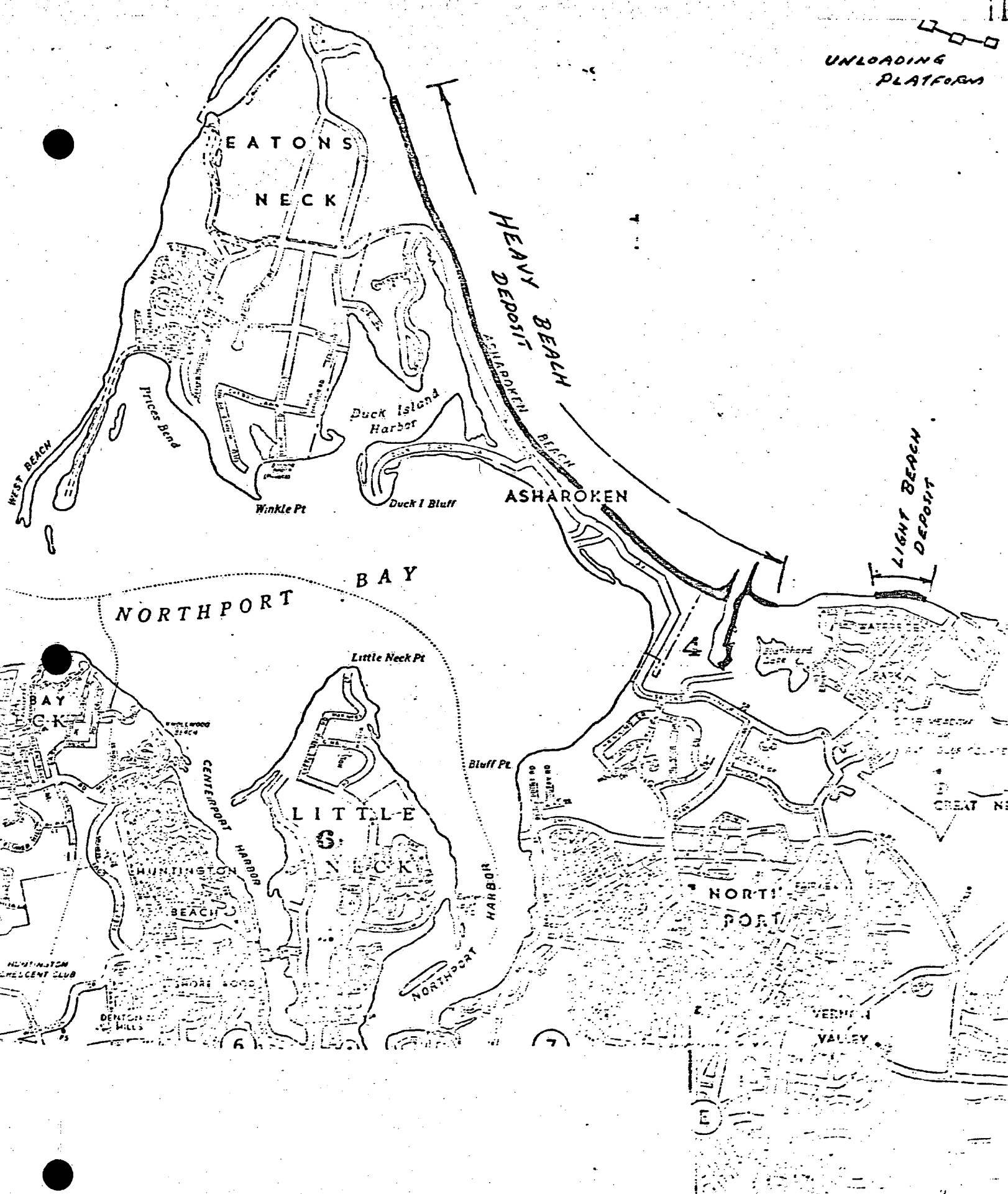
Mooring Sketch



J. B. Peck
Electric Production Manager

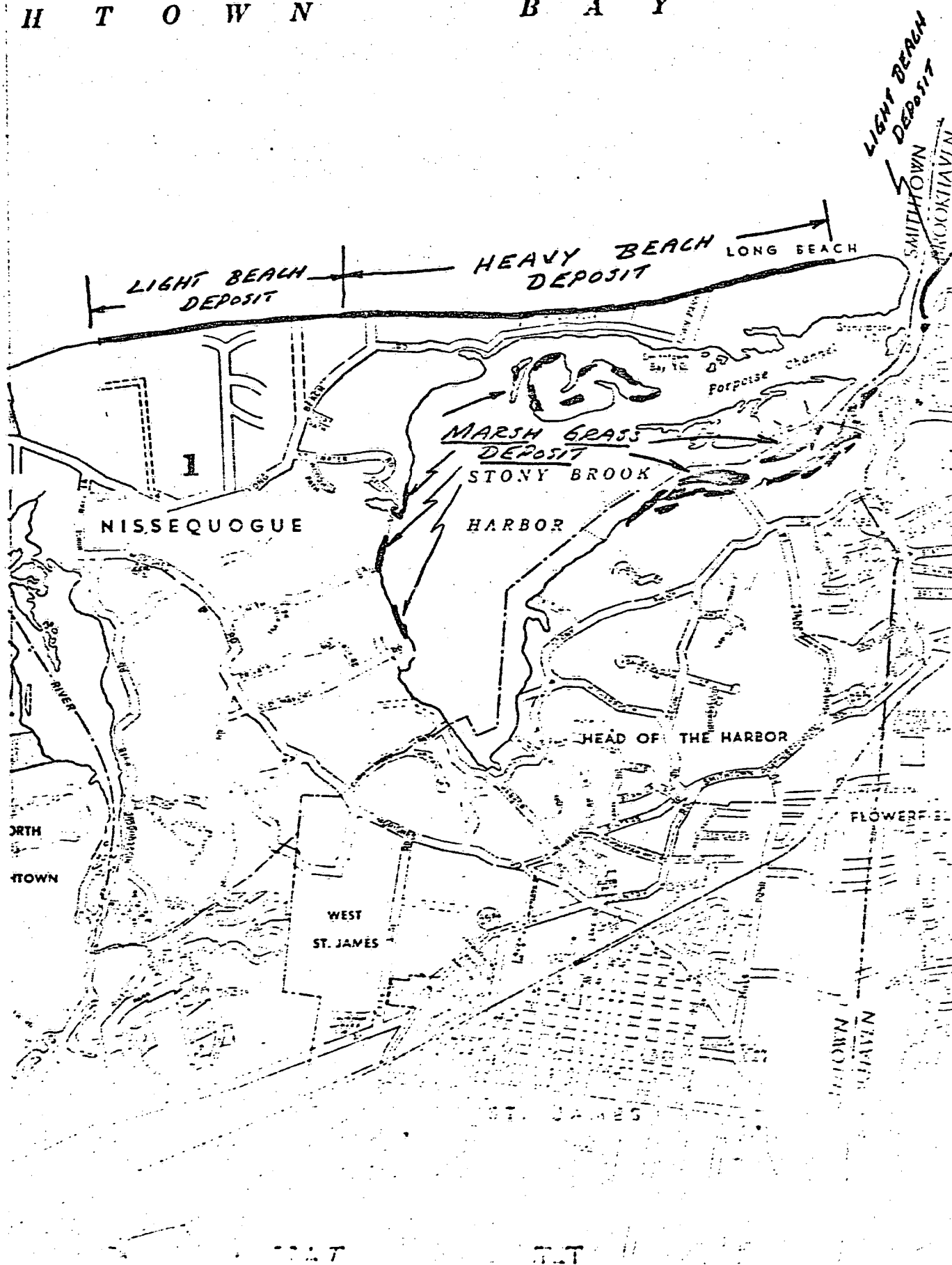
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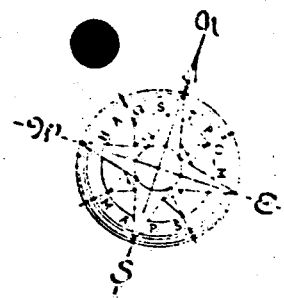
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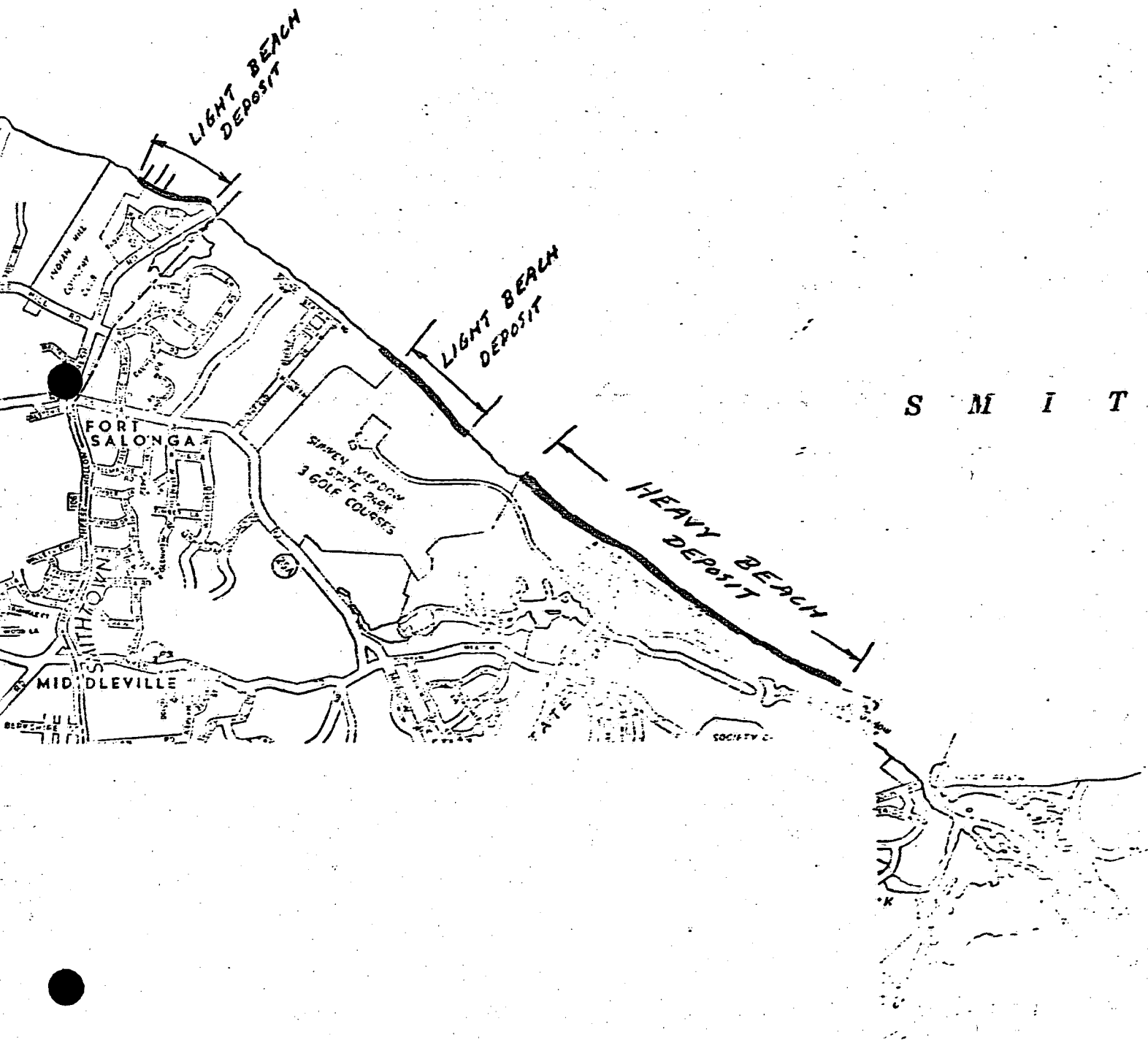
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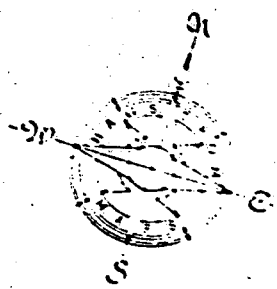
B A Y





L O N G





NOTE:

SEVERAL REPORTS
OF SPOTS ON BEACH
FURTHER EAST. NO
SIGNIFICANT DEPOSIT

ferry to Bridgeport, Connecticut

Crane Neck Pt

LIGHT BEACH
DEPOSIT

L O N G

BEACH
DEPOSIT

Piaz Pond

CRANE

OLD FIELD
NECK

CONSCIENCE
BAY

STRONG'S
NECK

OLD FIELD

BEACH

Mt. Misery Pt

PORT
JEFFERSON
HARBOR

BELLE TER

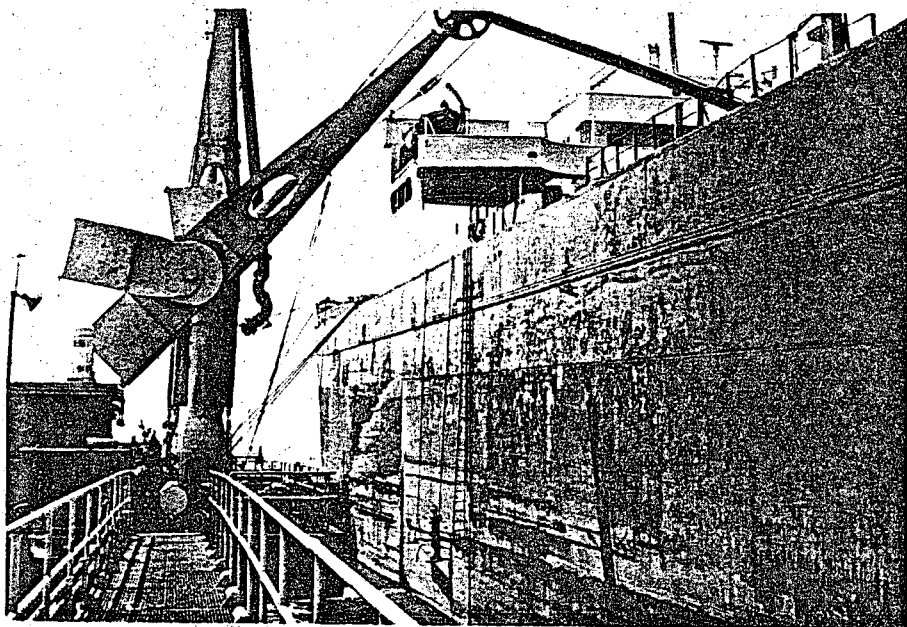
SETAUKET

POQUOTT

STONY
BROOK

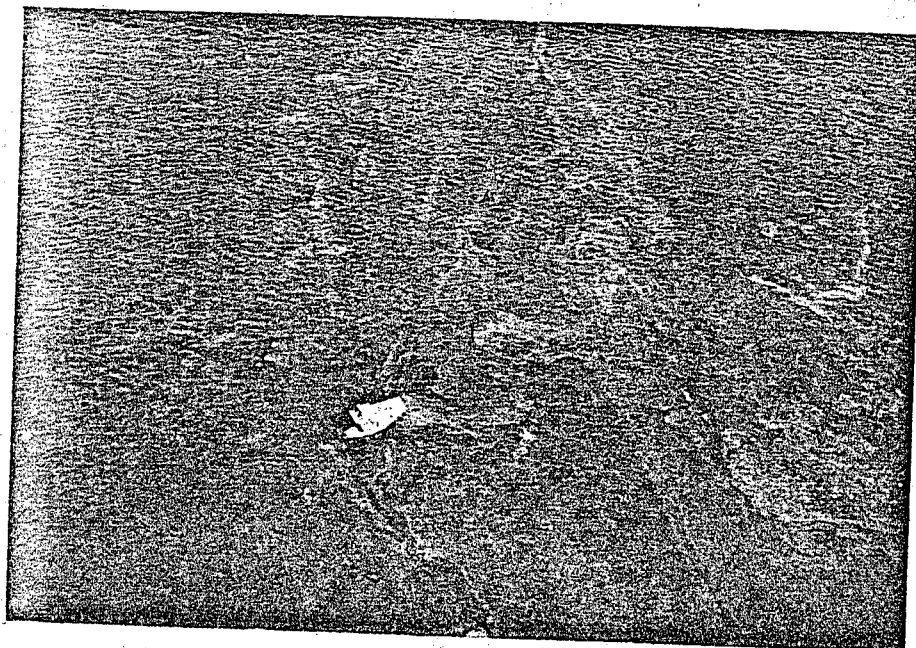
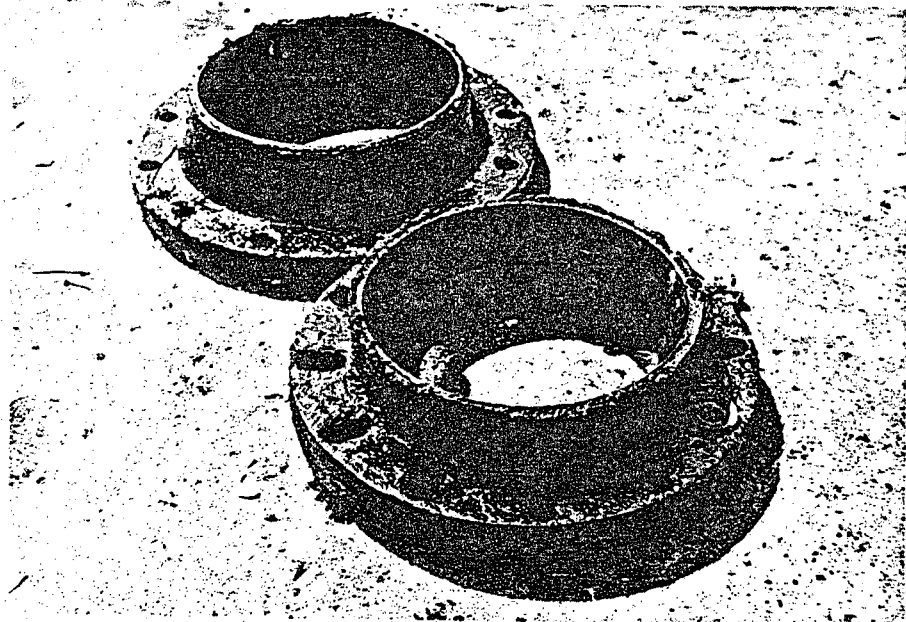
EAST
SETAUKET

1



Unloading Arms
of Tanker

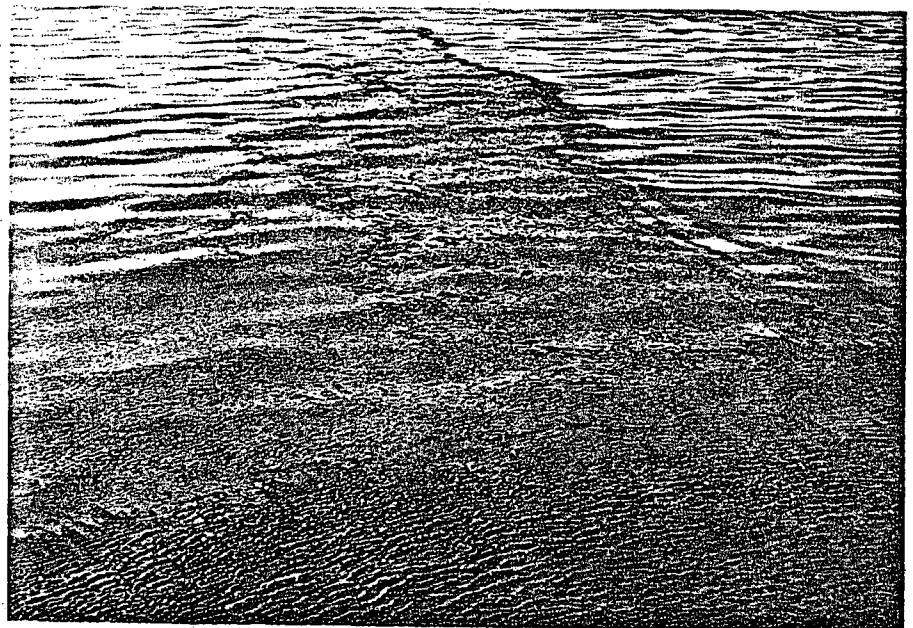
Broken Adapter



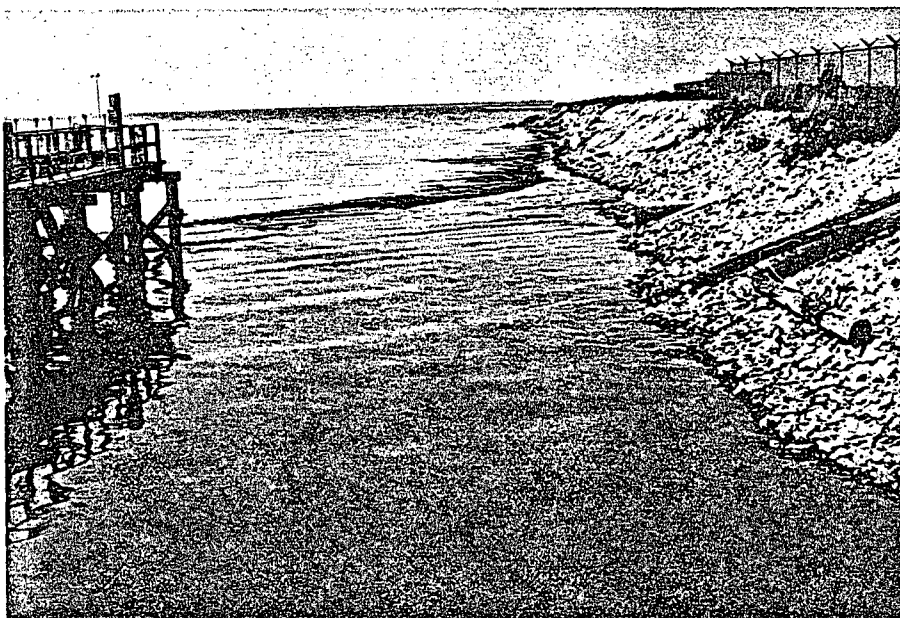
Off-shore
Cleanup Operation
(Skimmer Operation)



Northport Intake



Aerial Closeup



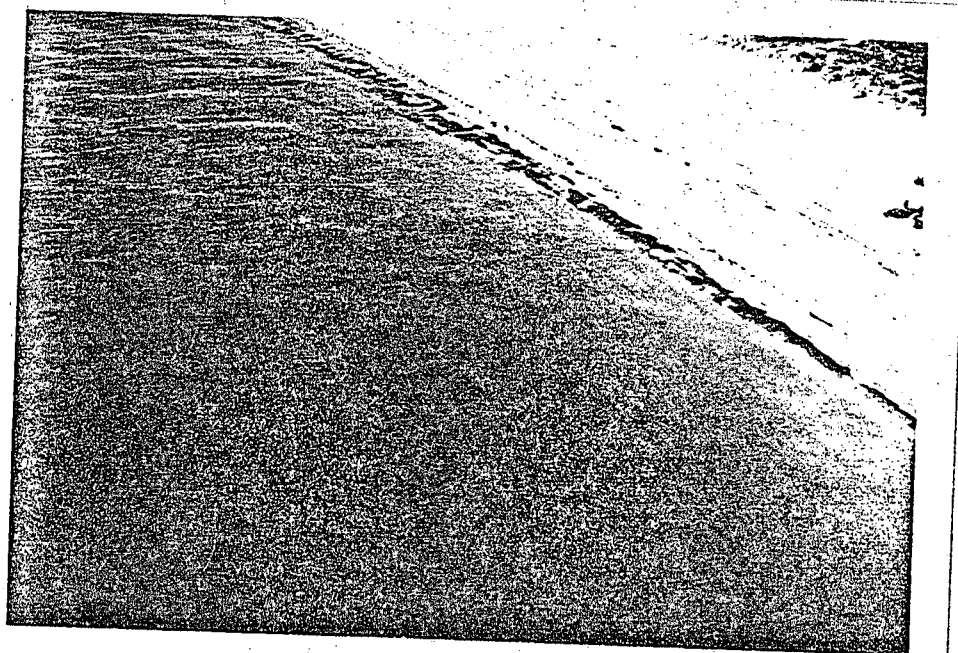
Northport Intake



Sunken Meadow

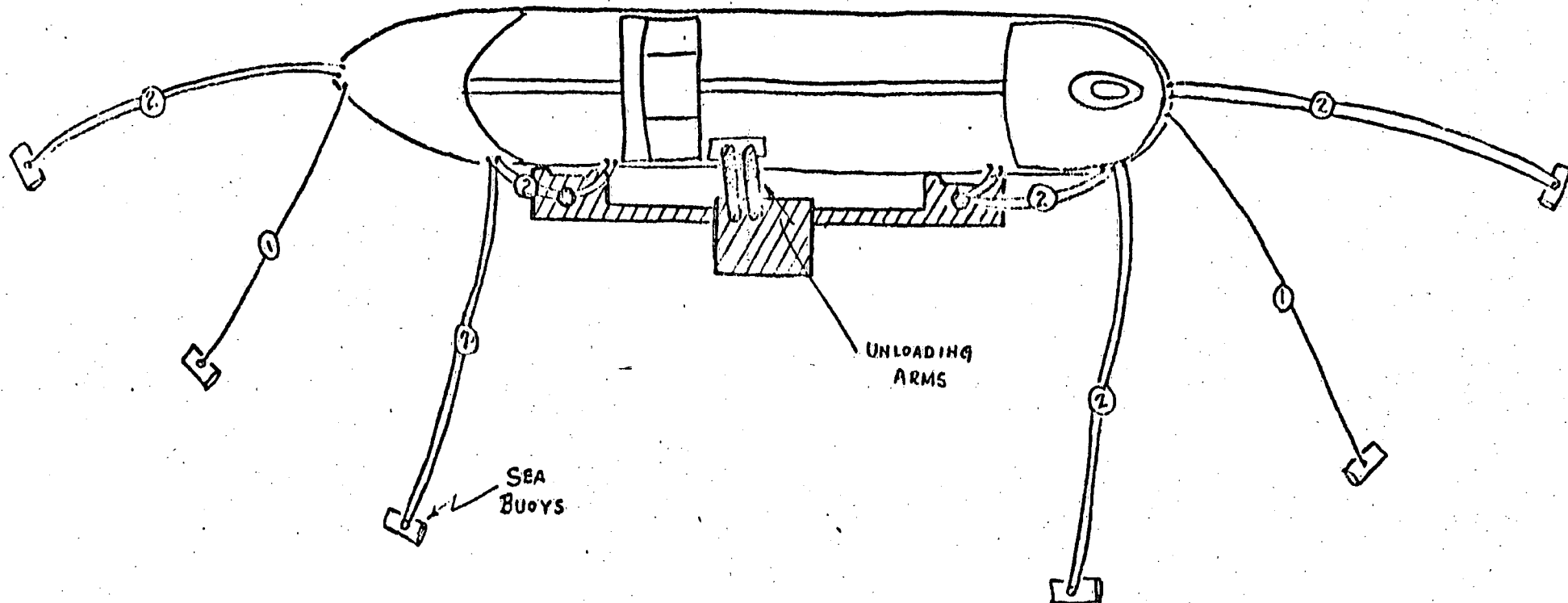


Beach Cleanup



Long Beach

LILCO NORTHPORT POWER STATION
NEPC FRIENDSHIP
JULY 5, 1973



NATIONAL WEATHER SERVICE NEW YORK CITY OFFICE

THU 5 AM EDT JULY 5 1973

NEW YORK CITY FORECAST

SHOWERS AND THUNDERSTORMS THIS MORNING BECOMING PARTLY SUNNY THIS AFTERNOON. HIGH 80 TO 85. FAIR TONIGHT. LOW 65 TO 70. SUNNY AND PLEASANT FRIDAY. HIGH IN THE MID 80S.

PROBABILITY OF RAIN.....90 PCT THIS AFTERNOON AND TONIGHT.....10 PCT FRIDAY.

WINDS....VARIABLE LESS THAN 10 MPH THIS MORNING WITH OCCASIONAL STRONGER GUSTS IN THUNDERSTORMS. NORTHWESTERLY WINDS 10 TO 15 MPH THIS AFTERNOON. VARIABLE WINDS 10 MPH OR LESS TONIGHT AND NORTHERLY 10 MPH FRIDAY.

OUTLOOK....SATURDAY...FAIR AND WARM.

6 AM TEMPERATURE FRIDAY ABOUT 69 RANGE.....LOW 68 HIGH 85

NEWSPAPER BOX....FAIR COOLER TONIGHT. SUNNY PLEASANT FRIDAY.

NATIONAL WEATHER SERVICE OFFICE NEW YORK CITY
THURSDAY JULY 5 1973 5.40AM RADAR REPORT

PLEASE DO NOT USE AFTER 7AM EDT

HEAVY THUNDERSTORMS LIKELY TO HIT NEW YORK CITY WITHIN THE NEXT HOUR AND A HALF...

THE RADAR AT ROCKEFELLER CENTER IS DETECTING A LINE OF VERY HEAVY THUNDERSTORMS OVER WESTERN NEW JERSEY EXTENDING FROM 25 MILES SOUTHWEST OF STEWART FIELD NEW YORK SOUTHWARD THROUGH WESTERN NEW JERSEY ...THROUGH TRENTON...AS FAR SOUTH AS CAPE MAY NEW JERSEY. THIS LINE IS LIKELY TO STRIKE NEW YORK CITY WITHIN THE NEXT HOUR AND A HALF. MOVEMENT IS TOWARD THE EAST AT 35 MILES AN HOUR.

SHOWERS AND THUNDERSTORMS ARE ALSO SCATTERED OVER WESTERN CONNECTICUT...MASSACHUSETTS...SOUTHERN VERMONT AND NEW HAMPSHIRE...THE COTSKILLS...EASTERN PENNSYLVANIA... AND THE ATLANTIC WATERS SOUTH OF NANTUCKET. THIS PRECIPITATION IS ALSO MOVING EAST AT 30 TO 35 MILES AN HOUR.

THE HEAVIEST THUNDERSTORMS ARE LOCATED 20 MILES EAST OF Poughkeepsie NEW YORK...THROUGH NORTHWESTERN NEW JERSEY... JUST SOUTHWEST OF McGUIRE BASE...AND IN THE VICINITY OF ATLANTIC CITY.

AVIATION...MAXIMUM TOP 34000 FEET JUST SOUTH OF McGUIRE AND 40 MILES WEST OF NEW YORK CITY...30000 FEET IN THE VICINITY OF ATLANTIC CITY.

NATIONAL WEATHER SERVICE OFFICE NEW YORK CITY
THURSDAY JULY 5 1973 6.40AM RADAR REPORT

PLEASE DO NOT USE AFTER 6AM EDT

THE RADAR AT ROCKEFELLER CENTER INDICATES THAT THE LINE OF HEAVY THUNDERSTORMS HAS JUST PASSED THROUGH THE NEW YORK CITY METROPOLITAN AREA...A THUNDERSTORM DROPPED AN INCREDIBLE ONE INCH OF RAIN ON THE CITY IN JUST TEN MINUTES.

THE LINE EXTENDS FROM Poughkeepsie NEW YORK SOUTHWARD TO JUST WEST OF WHITE PLAINS NEW YORK TO JUST EAST OF NEW YORK CITY...DOWN SOUTH AS FAR AS THE COASTAL WATERS OFF ATLANTIC CITY. MOVEMENT IS TOWARD THE EAST AT 35 TO 40 MILES AN HOUR.

THE LINE WILL GO THROUGH THE LOWER HUDSON VALLEY... WESTERN CONNECTICUT...AND CENTRAL LONG ISLAND...SHORTLY.

ELSEWHERE SHOWERS AND THUNDERSTORMS ARE SCATTERED OVER CONNECTICUT...MASSACHUSETTS...SOUTHERN NEW HAMPSHIRE... SOUTHEASTERN NEW YORK STATE...MOST OF NEW JERSEY...EASTERN PENNSYLVANIA...AND THE NEW JERSEY COASTAL WATERS.

THESE SHOWERS AND THUNDERSTORMS ARE ALSO MOVING EAST AT 35 MILES AN HOUR. AN EXCEPTION IS OVER NORTHWESTERN CONNECTICUT WHERE THEY ARE MOVING NORTH NORTHEAST AT 30 MILES AN HOUR.

AVIATION...MAXIMUM TOP 31000 FEET 15 MILES WEST OF SPRINGFIELD MASSACHUSETTS...UNDETERMINED HIGH TOPS IN EXCESS OF 30000 FEET AROUND NEW YORK CITY.

NATIONAL WEATHER SERVICE NEW YORK CITY OFFICE

THU 7.30 AM EDT JULY 5 1973

MARINE WARNING BULLETIN FOR LONG ISLAND SOUND UNTIL 8.30 AM EDT JULY

THE WEATHER SEARCH RADAR AT ROCKEFELLER CENTER IN NEW YORK CITY INDICATES A LINE OF THUNDERSTORMS MOVING EASTWARD ACROSS LONG ISLAND SOUND. HEAVY PRECIPITATION ACCOMPANIED BY STRONG GUSTY WINDS WILL BE ASSOCIATED WITH THE LINE OF THUNDERSTORMS.

BOATMEN ARE CAUTIONED TO BE ON THE ALERT.

OPERATION OF OFF-SHORE
FUEL UNLOADING FACILITY
NORTHPORT POWER STATION

LONG ISLAND LIGHTING COMPANY
175 E. OLD COUNTRY ROAD
HICKSVILLE NEW YORK, 11801

MUESER, RUTLEDGE, WENTWORTH & JOHNSTON
Consulting Engineers
415 Madison Ave.
NEW YORK, N. Y. 10017

March 10, 1975

MUESER · RUTLEDGE · WENTWORTH · & · JOHNSTON
Consulting Engineers

WILLIAM H. MUESER
PHILIP C. RUTLEDGE
PAUL M. WENTWORTH
ROBERT C. JOHNSTON
SALVATORE V. DESIMONE
JAMES P. GOULD
ELMER A. RICHARDS
EDMUND M. BURKE
Partners

415 MADISON AVENUE
NEW YORK, N. Y. 10017

212 ELDORADO 5-4800

DANAROMIEL, NEW YORK

March 10, 1975

NICHOLAS W. KOZIAKIN
MAX BERNHEIMER
GEORGE L. MOORE
Senior Associates

DOMINIC A. ZARRELLA
PETER H. EDINGER
PHILIP L. CALDWELL
VYTAUTAS ANONIS
WALTER WALCHUK
HUGH S. LACY
Associates

Long Island Lighting Co.
175 E. Old Country Road
Hicksville, N. Y. 11801

Attention: Mr. W. O. Uhl, Senior Vice President

Re: Operation of Off-Shore Fuel Unloading
Facility, Northport Power Station

Gentlemen:

In accordance with your request we summarize the design criteria, mooring and unloading procedures at your Off-Shore Fuel Unloading Facility at Northport, including your operations since completion of the installation.

I - ENCLOSURES

Included in this report are the following sketches and diagrams:

- Plate No. 1 - Existing Mooring Arrangement
- Plate No. 2 - Tanker Draft Limitations
- Plate No. 3 - Existing Loading Arms - Operating Envelope
- Plate No. 4 - Drift Limitation Diagram

II - EXISTING FACILITY

A. General

The existing fuel unloading facility is located about 10,000 feet offshore at Northport, Long Island and consists of an Unloading Platform connected by a submerged pipe to the shore installation, two Breasting Platforms and six Anchor Moorings for ships' bow, breasting and stern lines. This existing arrangement is shown on Plate No. 1.

The facility was built in its present form between spring of 1966 and late summer of 1967.

The Unloading Platform has plan dimensions of 54'-0" x 42'-0" with the outboard face set back 20'-0" from a reference line coincidental with the face of the Breasting Platform fenders. The platform was set back as noted to prevent impact from berthing tankers during normal berthing and to minimize accidental impact from an improper approach regardless of the causes. The amount of set back is greater than many similar installations because of LILCO's instructions that the mooring be constructed to satisfy maximum safety of operational criteria. The concrete deck slab is 2'-6" thick with a surface sloping from a high point at Elev. +19 along the perimeter to a sump located immediately south of the Continental-Emsco unloading towers. Twenty-two 18" dia. x 3/8" thick pipe piles filled with concrete, of which eight are battered, support this platform. There are two Continental-Emsco unloading towers mounted on this platform with provisions made for the installation of a third tower when the need arises. These towers have a vertical stand 20'-6" high, 30-ft. moveable arms and 12" diameter pipe size.

The Breasting Platforms have plan dimensions of 64'-0" x 30'-8" and a 52'-0" x 7'-8" recess along the outboard face where six F-50 Overload Type Raykin Buffers are mounted. The complete fendering assembly, which includes six 14" steel wide flange fender piles, four 30" steel wide flange wales and greenheart timber rubbing strips, extends 2'-7" beyond the farthest outboard face of the concrete at the undeflected position. The concrete platform slab varies in thickness from a minimum of 4' - 1" to a maximum of 4' - 3", having a high point at Elev. +18.5'. This platform is supported on thirty-eight 18" dia. x 3/8" thick concrete-filled pipe piles, of which six piles are vertical and thirty-two are battered. Each Breasting Platform is equipped with a specially designed fender system comprising 6 - F50 Raykin overload type buffers supported on heavy steel H-piles and mounted with continuous double steel girders so that the buffers act as a unit. A 100-ton mooring bollard is mounted on each Breasting Platform. Steel framed walkways connect Breasting Platforms and Unloading Platform.

B. Berthing Forces

The fuel unloading facility was designed to service a wide range of tanker sizes, satisfying the following berthing energy and draft limitations:

- (1) Each Breasting Platform and fender system was designed to absorb a kinetic energy of an approaching vessel, equal to or smaller than 1130 ft. kips, from an impact centered on the fender. This results in a horizontal force of 970 kips, acting concentrically on each fender panel and the platform for which both systems were designed.

- (2) The original design and construction limited the maximum draft of ships, berthing at this facility to 38 feet below Mean Low Water (Elev. ± 0.0), with the fender system deflected 27 inches, as shown on Plate No. 2.

Fender piles indicated on Plate No. 2 are shown in the deflected position which could occur at the time of the ship's impact against the fender system, resulting in the most critical relation to the batter piles. Ships with draft larger than 38 feet could endanger the stability of the Breasting Platform under the most critical limitations of impact and tide because of possible contact between the ship and the batter piles necessary to resist the horizontal berthing and mooring forces. Tankers somewhat larger than the normal ship, having a greater fully loaded draft, are able to berth only with less than their full oil cargo capacity to meet the above clearance limitations.

The maximum approach velocity of the berthing vessels can be derived from the generally accepted Energy formula, shown below:

$$E = \frac{2240 \cdot W \cdot v^2}{2 \cdot g}$$

where "E" equals total energy, generated by the berthing vessel, in foot pounds.

"2240" represents number of pounds in each long ton.

"W" equals total displacement of the vessel in long tons.

"v" equals velocity of approach, perpendicular to the fender system in feet per second.

"g" represents earth acceleration due to gravity, equal to 32.2 feet per second per second.

The fender system of the Breasting Platform is generally designed to resist one-half of the total berthing energy, the other half being absorbed by deflection within, and rotation of the vessel, as well as other miscellaneous factors.

Thus, the formula for determination of the maximum approach velocity of the berthing vessel, measured perpendicular to the fender system, can be generally expressed as follows, with the introduction of the one-half factor:

$$v^2 = \frac{2 \cdot 2 \cdot \cancel{g} \cdot E}{2240 \cdot W}$$

Assuming the maximum energy of approach $E = 1130$ ft. kips, the above general formula could be expressed as follows:

$$v^2 = \frac{2 \cdot 2 \cdot 32.2 \cdot 1130 \cdot 1000}{2240 W} = \frac{65000}{W} \quad \text{or} \quad v = \sqrt{\frac{65000}{W}}$$

for a ship striking the structure at the centerline of the fender panel. " v " in the above equation equals velocity of approach of the berthing vessel, in feet per second, perpendicular to the fender system.

As an illustration, this results in a theoretical allowable approach velocity of one foot per second (perpendicular to the fender) for 50,000 DWT ship which is equivalent to a displacement of 66,000 long tons, when impact is at the center of the fenders. Practically, allowing for an off-center contact, the approach velocity should be reduced by about one-third of the theoretical velocity calculated by formula.

C. Forces Acting on a Moored Ship

The principal force acting on a moored vessel is wind. In the design it was assumed that the tanker would remain at the mooring with winds forecast up to 55 m.p.h.. This, combined with a current of 1.8 knots, running parallel to the longitudinal axis of the facility for both outgoing and incoming tides, results in combined forces on the ship of 125,000 lbs. in the longitudinal direction and 515,000 lbs. in either direction perpendicular to the fender line. When the winds are predominantly offshore the ship is held in position at the mooring by lines attached to bollards on the Breasting Platforms and the six Anchor Moorings. When winds are predominantly onshore the longitudinal component is resisted by the combination of lines to the Anchor Moorings and the Breasting Platforms; the component perpendicular to the fenders is taken entirely by the two Breasting Platforms which have substantially higher capacity to resist these forces since they are designed to resist impact during berthing of the ships.

Bollards with capacity of 100 tons were provided on each Breasting Platform for the tanker's mooring lines. There are also six Anchor Moorings set to the east and west of the Breasting Platform. Each anchorage assembly consists of an eight-ton Danforth anchor with stud link chains, ten-ton concrete sinker, buoy and drawbar fitted for two quick release hooks. Hook and linkage to drawbar were designed for 115-ton proof load and the link chain assembly for a minimum proof load equal to 140 tons. The anchors were jettied into the sand and gravel strata to develop their maximum holding power. These Anchor Moorings were designed to sustain a working load of 100 tons at each assembly to allow for some reduction in strength during use.

D. Unloading Operations

The existing facility has been successfully operated since summer of 1967.

Tankers of various sizes have repeatedly berthed at the facility, unloaded their cargo and left without incident. All systems performed well. The efficiency of the unloading arms was more than satisfactory. Their flexibility proved more than adequate for the vessels calling at the platform.

A single incident of an oil spill which occurred in summer of 1973, during the unloading operations, was the result of a rupture of the connection between a loading arm and the ship's manifold. This happened due to the excessive drift of the moored tanker, during a high wind gust. Pumping operations would normally terminate when velocity of winds approaches 45 m.p.h., which would have prevented this unfortunate occurrence. This incident could have occurred at a lower wind velocity if the lines were not attended, to prevent excessive drift.

III - IMPROVEMENTS

A. Improvements implemented

To safeguard against possible future oil spills at the Unloading Facility from abnormal physical conditions the following operational improvements have been implemented since the summer of 1973.

- (1) Weather information and monitoring system at the operating platform has been improved to permit the constant flow of information of the weather conditions in the area and the long and short term weather forecasts.
- (2) Two-way radio contact between the operating platform, LILCO's control room and the moored ship's crew and officers has been established and is being used constantly during pumping operations to assure quick cut-off of the ship's pumps in the event of some unforeseen development.
- (3) Trained personnel has been added by LILCO to assure that the unloading operations are being performed in accordance with established operating rules.
- (4) Wire rope breasting lines, when available on the ships, are being used instead of synthetic fibre lines to reduce the stretch of lines under stress. In the event that a vessel does not have wire lines, additional synthetic fibre mooring lines are introduced to provide for increased safety and to reduce the possibility of excess drift.
- (5) Constant checks and adjustments of the mooring lines are being made to prevent excessive drift of the moored vessel and hold it within permissible limits.
- (6) Drift measuring devices and alarm system have been installed to provide positive notice of drift of the moored vessel should it move beyond the established safe limits of drift so that mooring lines are readjusted or pumping may be discontinued until corrective measures are taken.

B. Drift Limitations

The safe limit of drift for any vessel, moored at your offshore facility can be determined from the enclosed Plate No. 4. The line diagram shows the maximum permissible drift envelope of the moored vessel, perpendicular to the fender structure, for various tide levels and vessel freeboard conditions, with a simultaneous fore or aft drift of 15 feet. The diagram is drawn for various ship sizes and loading conditions, starting with a minimum 10 ft. freeboard at Extreme Low Water (El. -3.0') to a maximum 40-ft. freeboard at Extreme High Water (El. +10.0') as noted on the schematic diagram shown on Plate No. 3. This includes all vessels that are normally expected to discharge oil at the facility. An almost parallel, dotted line outside the diagram limits indicates maximum drift envelope without fore or aft drift.

The "safe limit" envelope is derived by subtracting a distance "a", from the side of the ship to the manifold flange from the horizontal distance "b", between the face of the fender line and the solid line of the drift envelope and dividing the difference by a desired factor of safety. (Factor of safety of 2 is used in the diagram on Plate No. 4). The horizontal distance should in all cases be measured about 4 feet above the level of the ship's deck. A distance of 15 feet from the ship's side to the manifold flange is used on this diagram. This distance normally varies from 8 feet to 15 feet, but is occasionally larger.

Mooring of vessels where the distance of manifold flange from the side of vessel is significantly larger than 15 feet requires special care in handling, while unloading oil at this facility. A closer control of the drift limits and careful observation of the weather conditions must be enforced.

Pumping from vessels with freeboards higher than 40 feet when unloaded should only be permitted if the deck does not rise above Elev. +50 (31 feet above the Unloading Platform deck), in addition to other limitations noted above. In any case, we recommend that the allowable freeboard of a moored vessel be limited to 45 feet.

C. Recommendations and Conclusions

We believe the existing facility has demonstrated its structural and operational adequacy during the past eight years under the operating rules you have established. To assure continuous safe operations in the future, we recommend that your present operating rules be strictly enforced, together with the following additional procedures.

- (1) Periodic check should be made on the structural integrity of the individual components to assure their full capacity to perform designed functions.
- (2) Maintenance repairs should be made promptly.

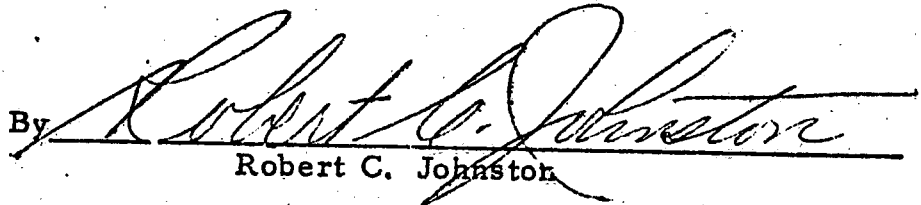
- (3) All pumping operations should stop when wind velocity at the site is approaching 45 miles per hour or when drift of the moored vessel exceeds the predetermined safe limits.
- (4) No vessel should be accepted at the mooring when the weather forecast anticipates high winds, exceeding 45 miles per hour within the estimated unloading time.
- (5) Use of an oil boom around the ship during unloading is not recommended because of the exposed location and high wave action which would normally occur during critical conditions. The boom would also create a hazardous situation in the event the ship must depart from the mooring in an emergency.

In summary, it is our opinion that the existing off-shore facility has demonstrated adequate capacity to provide for continuous, safe unloading operations. The newly implemented operational rules provide additional safeguards and will substantially increase the safety of the facility.

Very truly yours,

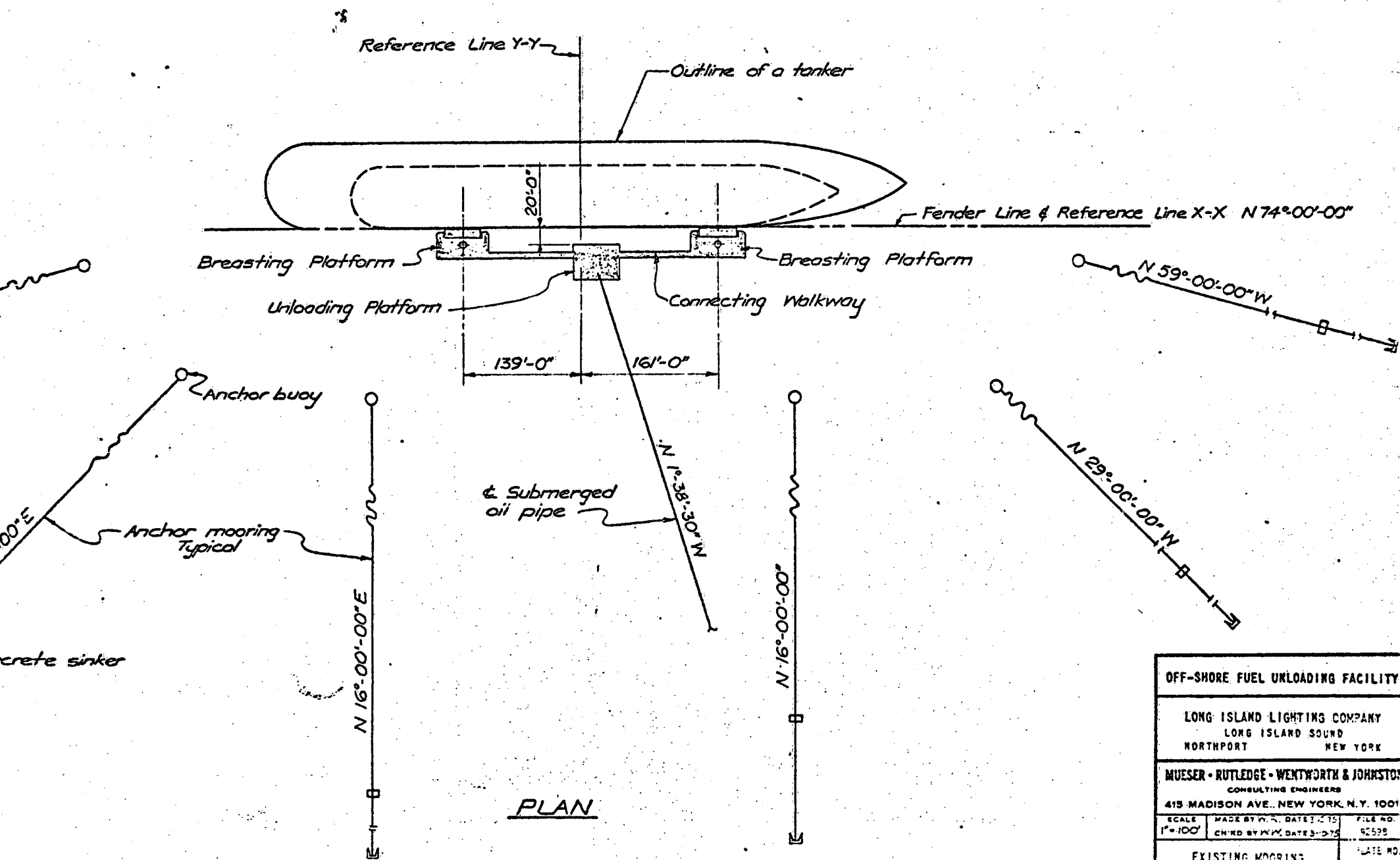
MUESER, RUTLEDGE, WENTWORTH & JOHNSTON

By



Robert C. Johnston

WW:RCJ/es
enc.



OFF-SHORE FUEL UNLOADING FACILITY

LONG ISLAND LIGHTING COMPANY
LONG ISLAND SOUND
NORTHPORT NEW YORK

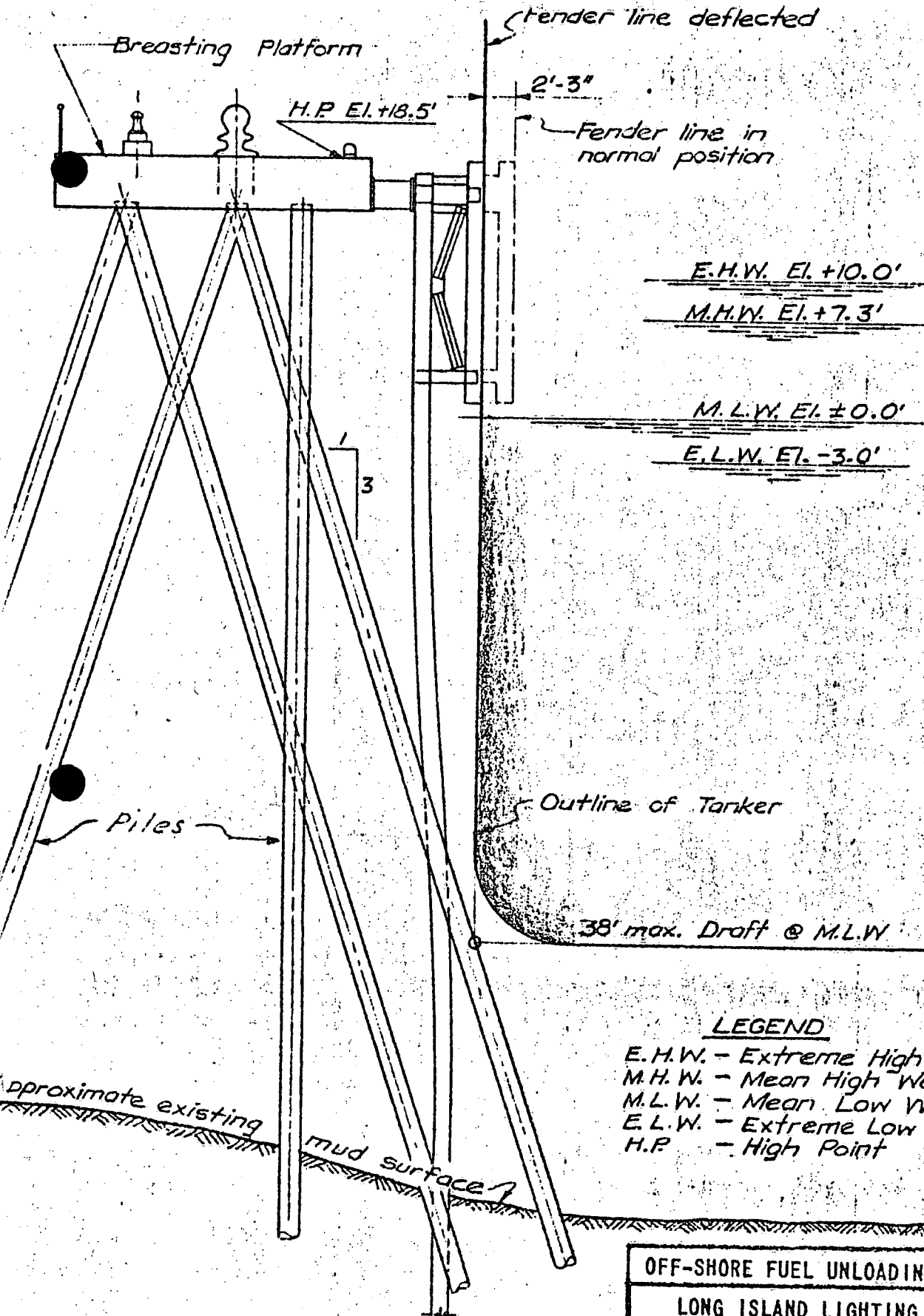
MUESER • RUTLEDGE • WENTWORTH & JOHNSTON
CONSULTING ENGINEERS

415 MADISON AVE., NEW YORK, N.Y. 10017

SCALE 1"=100'	MADE BY W.R. DATE 3-2-75	FILE NO. 42598
	CH'D BY W.W. DATE 3-3-75	

EXISTING MOORING
ARRANGEMENT

PLATE NO.
I



**TYPICAL SECTION
THROUGH BREASTING PLATFORM**

OFF-SHORE FUEL UNLOADING FACILITY

LONG ISLAND LIGHTING COMPANY
LONG ISLAND SOUND
NORTHPORT NEW YORK

MUESER • RUTLEDGE • WENTWORTH & JOHNSTON

CONSULTING ENGINEERS

415 MADISON AVE., NEW YORK 17, N. Y.

MADE BY: W.R. DATE: 3-10-75

FILE NO.

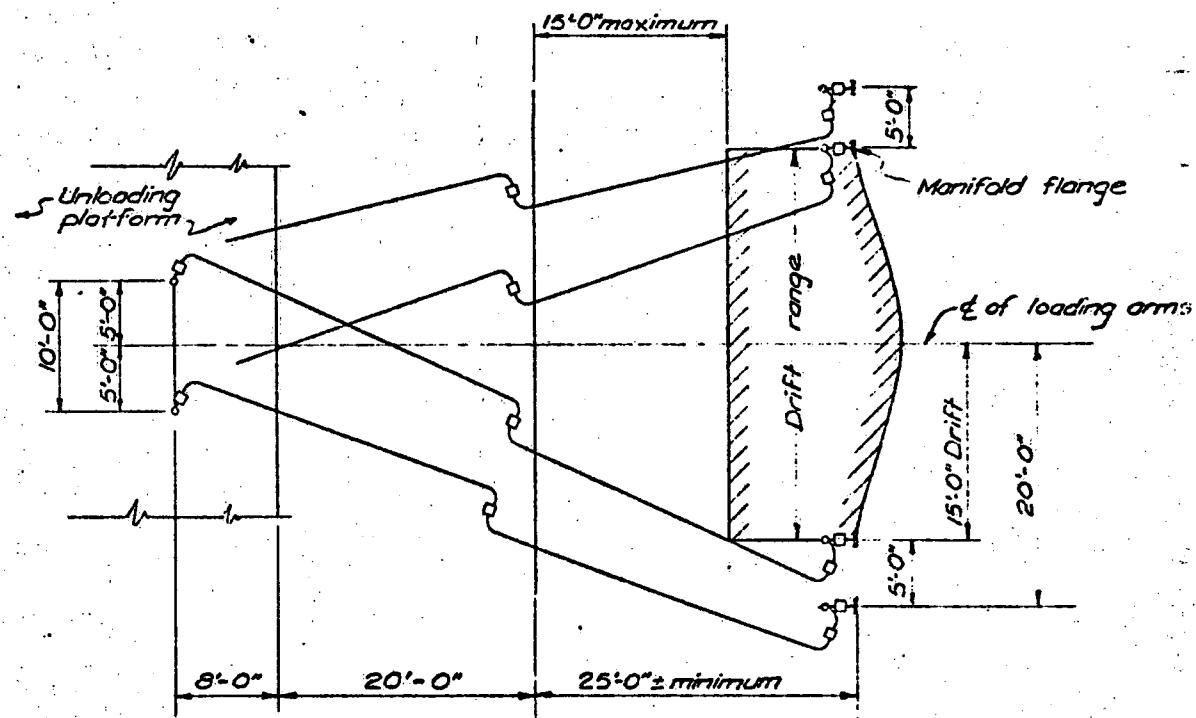
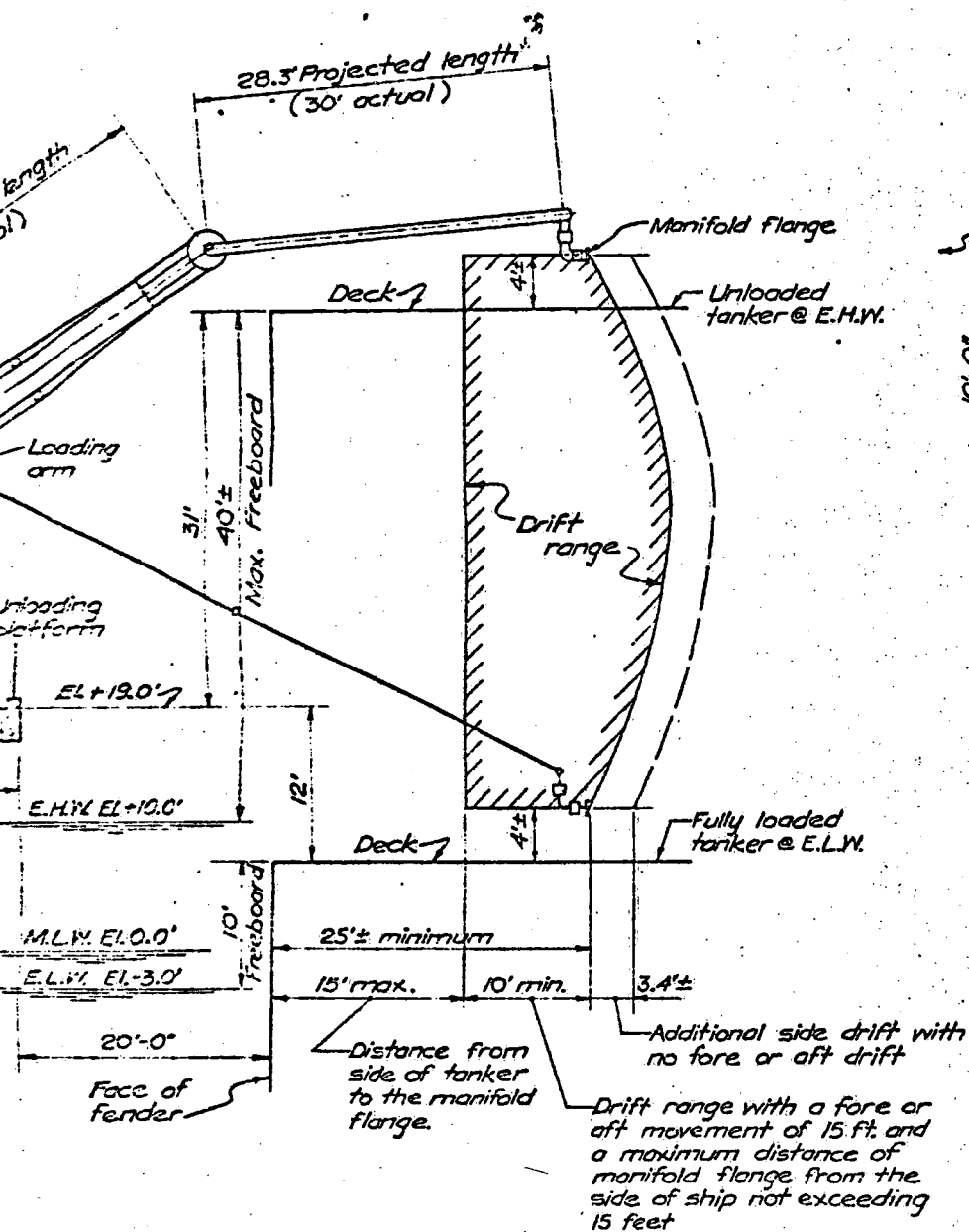
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42598

TANKER DRAFT LIMITATIONS

PLATE NO.

2



LEGEND

E.H.W., Extreme High Water
M.L.W. Mean Low Water
E.L.W. Extreme Low Water

OFF-SHORE FUEL UNLOADING FACILITY

LONG ISLAND LIGHTING COMPANY
LONG ISLAND SOUND
NORTHPORT NEW YORK

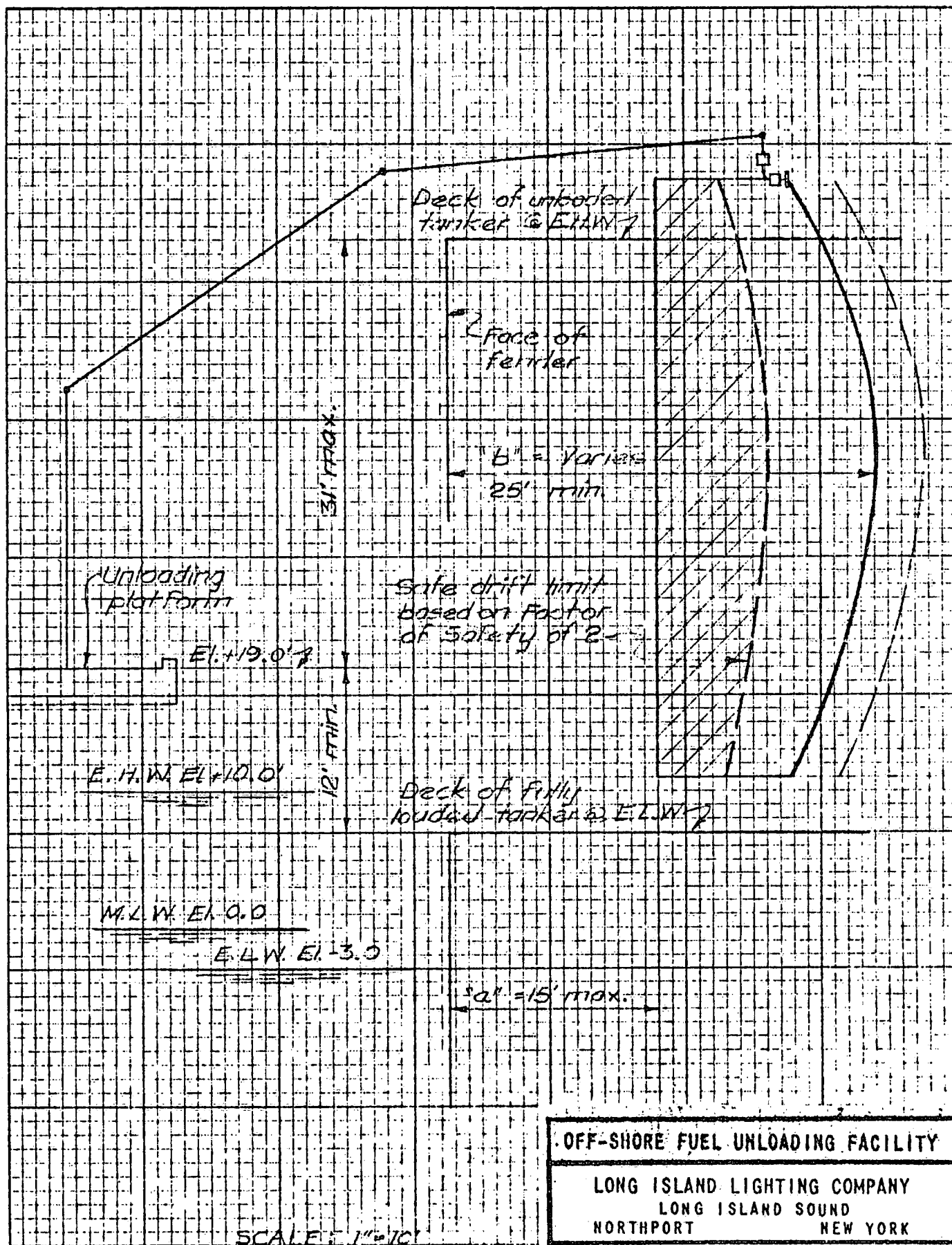
MUESER • RUTLEDGE • WENTWORTH & JOHNSON
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SCALE 1"=10' MADE BY W.R. DATE 5-1-75 FILE NO. 42593

EXISTING LOADING ARMS OPERATING ENVELOPE

PLATE NO. 3



OFF-SHORE FUEL UNLOADING FACILITY

LONG ISLAND LIGHTING COMPANY
LONG ISLAND SOUND
NORTHPORT NEW YORK

MUESER • RUTLEDGE • WENTWORTH & JOHNSTON

CONSULTING ENGINEERS

415 MADISON AVE., NEW YORK 17, N. Y.

MADE BY: W.R. DATE: 3-10-75

FILE NO.

CHK'D BY: W.W. DATE: 3-10-75

4259R

PLATE NO

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Internal Combustion Division's Stations located in Suffolk and Nassau Counties, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities, covers the substations that are located on the Internal Combustion Division's properties.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

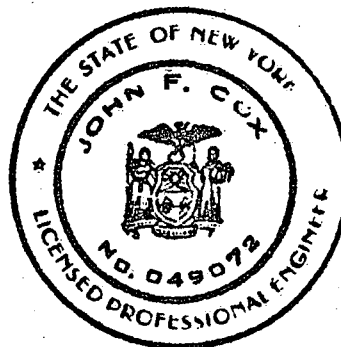
This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Internal Combustion Division's Glenwood Gas Turbine #1 Power Station located at Glenwood, Nassau County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the substation that is located on the Glenwood Gas Turbine #1 Power Station property.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

SPILL PREVENTION AND COUNTERMEASURE PLAN

GLENWOOD GAS TURBINE UNIT NO. 1

A. INTRODUCTION

The purpose of the SPCC Plan is to: 1) prevent the discharge of oil into navigable waters and 2) minimize control and contain such discharge in the event it does occur.

B. DESCRIPTION OF THE FACILITY

1. Glenwood Gas Turbine Unit No. 1 is an Electric Generating Station located on Shore Road in Glenwood Landing, Nassau County, New York. The property encompasses 38 acres and has approximately 880 feet of frontage on Hempstead Harbor.
2. Two fuel oil truck transfer facilities for No. 2 oil are located on the property. No. 2 oil is stored in one tank having a capacity of 588,000 gallons.
3. The Gas Turbine Electric Generating Plant contains fuel oil and lubricating oil piping systems.
4. An Electric Substation is located adjacent to the Gas Turbine.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil storage tank is constructed in conformance with the applicable A.P.I. code. The tank is protected against spillage by a high level alarm, an automatic high level emergency shutoff valve in the fill line, and a steel dike designed to contain the entire contents of the tank.
2. The terminal ends of the fuel oil unloading lines are protected by collision guards, check valves, shutoff valves, caps and drain sumps for the fill hose. Delivery instructions are conspicuously posted at the fill connections.

3. The fuel oil truck parking area is protected against the spread of oil spills by curbs and two 1,000 gallon sumps.
4. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code.
5. Waste oil is dumped into drums which are routinely emptied by a waste oil disposal truck.
6. The site is covered with a four inch layer of crushed stone, so that the spread of potential oil spills is controlled.
7. The plant area is protected from unauthorized land site entry by a chain link fence topped with barbed wire. All entrance gates are securely locked. Effective area lighting affords additional protection.

D. OIL SPILL HISTORY

1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within 12 months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

E. OIL SPILL PREVENTION PROCEDURE

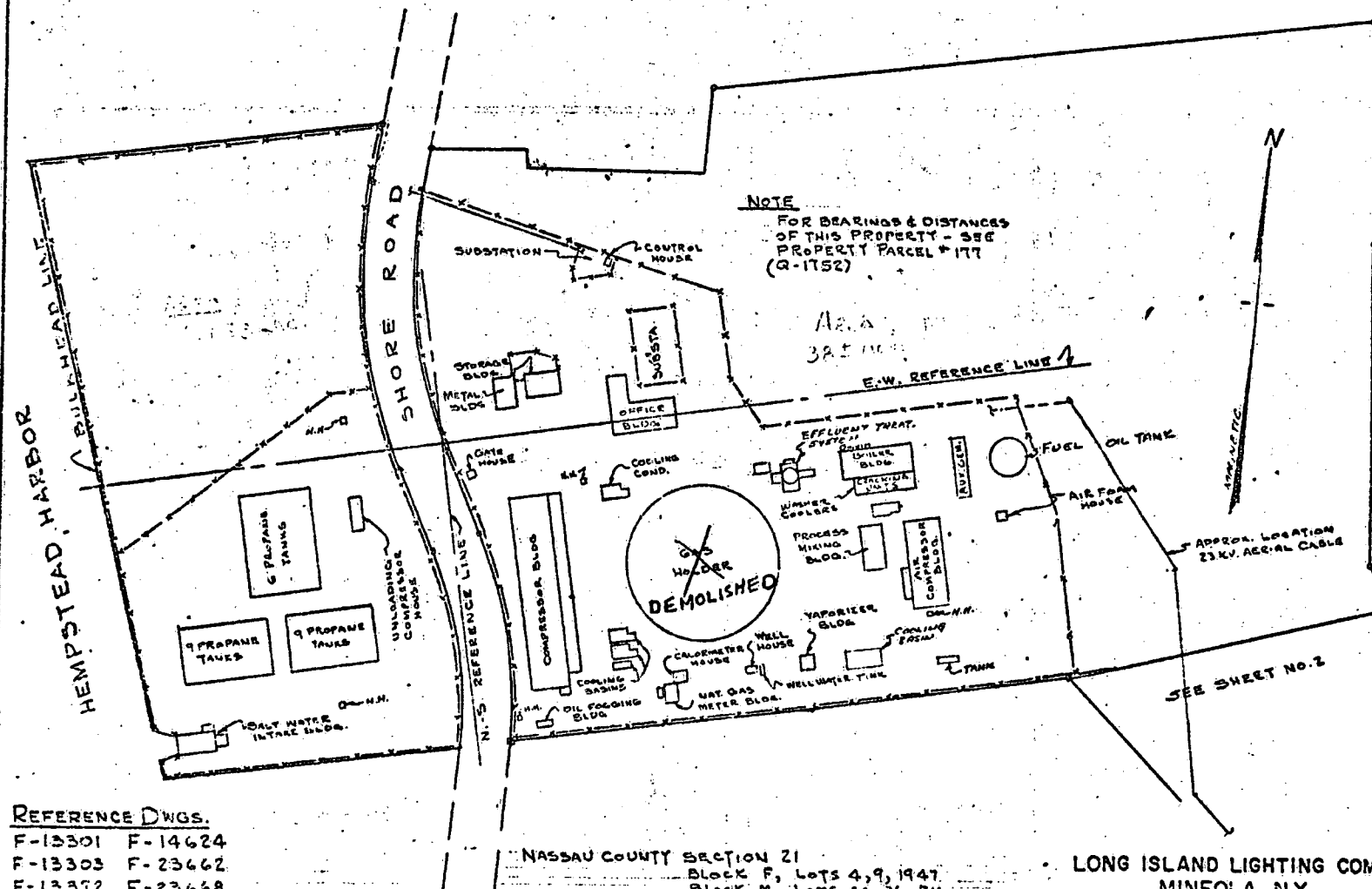
1. Maintenance of piping and equipment related to transfer and storage of oils will be given high priority.
2. Personnel will be adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings will be held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan will always be on the premises.

3. The SPCC Plan will be reviewed annually to determine what revisions are necessary.
4. Oil drain valves will always have outlet plugs and critical valves will be locked.
5. Entrance gates will remain locked when not in use. Area lighting maintenance will be given high priority.
6. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.

S-PARCEL NO. 177



REFERENCE DWGS.

F-13301 F-14624
F-13303 F-23462
F-13372 F-23468
F-13591 M-2784
F-14491 M-2953
800 Q-1752

NASSAU COUNTY SECTION 21

BLOCK F, LOTS 4, 9, 1947
BLOCK M, LOTS 34-36, 516

LONG ISLAND LIGHTING COMPANY
MINEOLA, N.Y.

GLENWOOD LANDING GAS PLANT SITE
SITUATED AT GLENWOOD LANDING, TOWN
OF OYSTER BAY, COUNTY OF NASSAU, N.Y.

SCALE 1"=160'-0"

SHEET 1 OF 2

11-27-72

4-1-73
8-14-72
10-8-66
12-1-64
3-31-64

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Internal Combustion Division's West Babylon Power Station located at West Babylon, Suffolk County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the substation that is located on the West Babylon Power Station property.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

SPILL PREVENTION AND COUNTERMEASURE PLAN

WEST BABYLON ELECTRIC GENERATING STATION

A. INTRODUCTION

The purpose of the SPCC Plan is to: 1) prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF THE FACILITY

1. The West Babylon Electric Generating Station is located on Babylon Boulevard in West Babylon, Suffolk County, New York. The property encompasses approximately 13 acres.
2. Two fuel oil truck transfer facilities for No. 2 oil are located on the property. No. 2 oil is stored in two tanks having capacities of 508,000 gallons each.
3. The Gas Turbine Electric Generating Plant contains fuel oil and lubricating oil piping systems.
4. An electric substation is located adjacent to the gas turbine.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil storage tanks are constructed in conformance with the applicable A.P.I. code. The tanks are protected against spillage by an earthen dike that will contain the entire contents of the tanks.
2. The terminal ends of the fuel oil unloading lines are protected by collision guards, check valves, shutoff valves, caps and drain sumps for the fill hose. Delivery instructions are conspicuously posted at the fill connections.

3. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code.
4. Waste oil is dumped into drums which are routinely emptied by a waste oil disposal truck.
5. The site is covered with a four (4) inch layer of crushed stone, so that the spread of potential oil spills is controlled.
6. The plant area is protected from unauthorized land site entry by a chain link fence topped with barbed wire. All entrance gates are securely locked. Effective area lighting affords additional protection.

D. OIL SPILL HISTORY

1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within 12 months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

E. OIL SPILL PREVENTION PROCEDURE

1. Maintenance of piping and equipment related to transfer and storage of oils will be given high priority.
2. Personnel will be adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings will be held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan will always be on the premises.
3. The SPCC Plan will be reviewed annually to determine what revisions are necessary.

4. Oil drain valves will always have outlet plugs and critical valves will be locked.
5. Entrance gates will remain locked when not in use. Area lighting maintenance will be given high priority.
6. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps. shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Internal Combustion Division's Shoreham Station located at Shoreham, Suffolk County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the substation that is located on the Shoreham Power Station property.

Dated: July 13, 1976

Professional Engineer's Certification



John F. Cox

SPILL PREVENTION AND COUNTERMEASURE PLAN

SHOREHAM ELECTRIC GENERATING STATION

A. INTRODUCTION

The purpose of the SPCC Plan is to: 1) prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF THE FACILITY

1. The Shoreham Electric Generating Station is located on North Country Road in Shoreham, Suffolk County, New York. The property encompasses approximately 499 acres and has approximately 1,400 feet of frontage on Long Island Sound.
2. A fuel oil truck transfer facility for No. 2 oil is located in the southern portion of the property. No. 2 oil is stored in one tank having a capacity of 973,000 gallons.
3. The gas turbine electric generating plant contains fuel oil and lubricating oil piping systems.
4. An electric substation is located adjacent to the gas turbine.
5. A large nuclear Power Station is under construction on this site, scheduled for completion in 1979.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil storage tank is constructed in conformance with the applicable A.P.I. code. The tank is protected against spillage by a steel dike designed to contain the entire contents of the tank.
2. The terminal end of the fuel oil unloading line is protected by collision guards, check valve, shutoff valve, cap and drain sump for the fill hose. Delivery instructions are conspicuously posted at the fill connection.
3. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code.

4. Waste oil is dumped into drums which are routinely emptied by a waste oil disposal truck.
5. The site is covered with a four (4) inch layer of crushed stone, so that the spread of potential oil spills is controlled.
6. The plant area is protected from unauthorized land site entry by a chain link fence topped with barbed wire. All entrance gates are securely locked. Effective area lighting affords additional protection.

D. OIL SPILL HISTORY

1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within 12 months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

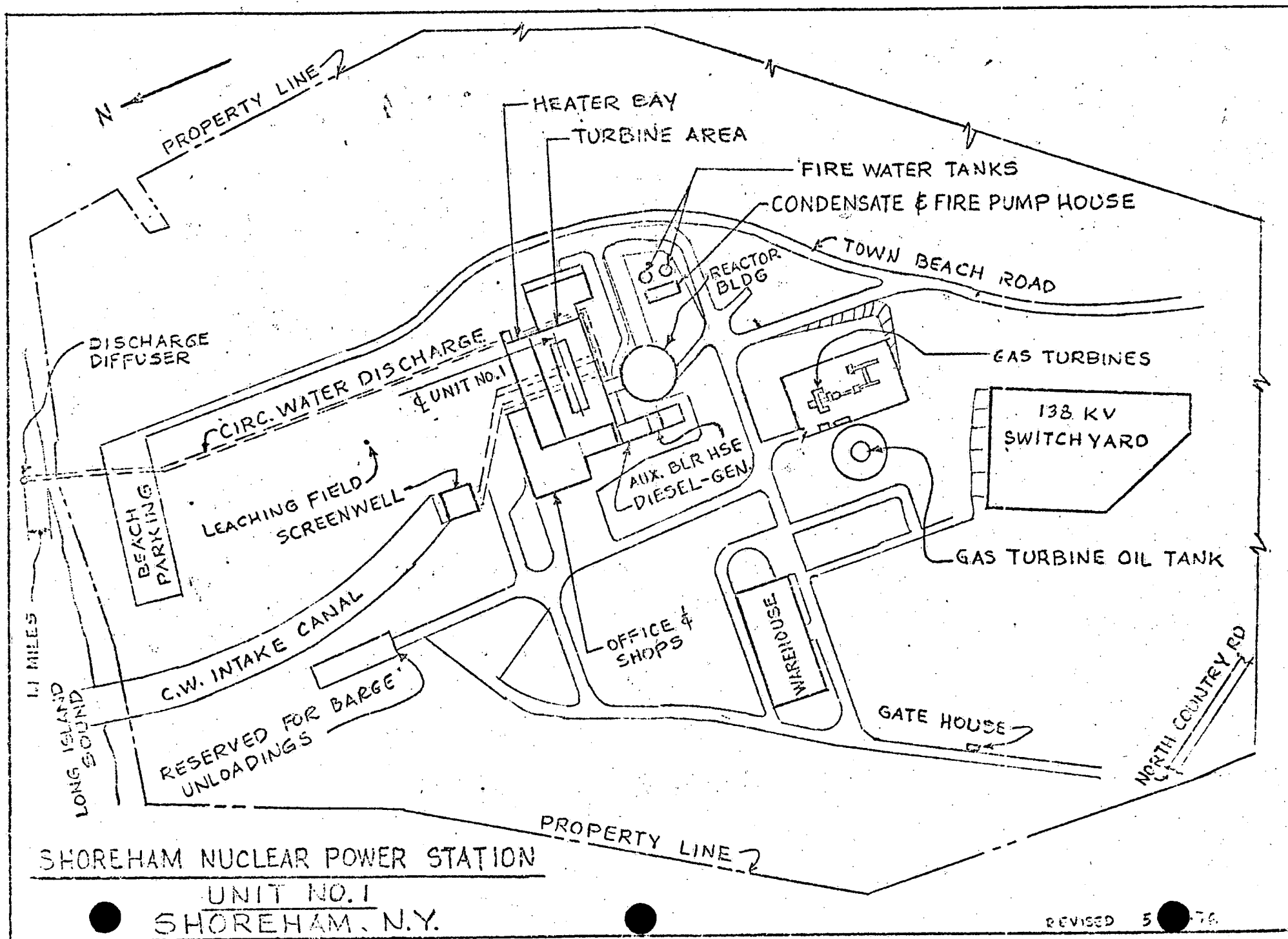
E. OIL SPILL PREVENTION PROCEDURE

1. Maintenance of piping and equipment related to transfer and storage of oils will be given high priority.
2. Personnel will be adequately trained in the operation and maintenance of equipment to prevent the discharge of oil. Briefing meetings will be held at six month intervals for all personnel to insure their understanding the SPCC Plan and to update them on changes. A copy of the SPCC Plan will always be on the premises.
3. The SPCC Plan will be reviewed annually to determine what revisions are necessary.
4. Oil drain valves will always have outlet plugs and critical valves will be locked.
5. Entrance gates will remain locked when not in use. Area lighting maintenance will be given high priority.

6. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.



SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

This document constitutes the Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the Long Island Lighting Company's Internal Combustion Division's Station located at Montauk, Suffolk County, New York, as required by the Environmental Protection Agency Regulations on Oil Pollution Prevention Non-Transportation Related Onshore and Offshore Facilities.

This document does not cover fuel oil unloading operations already covered under Title 33 of the United States Coast Guard Regulations governing Pollution Prevention Vessel and Oil Transfer Facilities.

The SPCC Plan for Electrical Substation Facilities covers the substation that is located on the Montauk Station property.

Dated: _____

July 13, 1976

Professional Engineer's Certification



John F. Cox

SPILL PREVENTION AND COUNTERMEASURE PLAN

MONTAUK ELECTRIC GENERATING STATION

A. INTRODUCTION

The purpose of the SPCC Plan is to 1) prevent the discharge of oil into navigable waters and 2) minimize, control and contain such discharge in the event it does occur.

B. DESCRIPTION OF THE FACILITY

1. The Montauk Electric Generating Station is located on Second House Road in Montauk, Suffolk County, New York. The property encompasses approximately one acre and has 302 feet of frontage on Fort Pond.
2. A fuel oil truck transfer facility for No. 2 oil is located alongside Second House Road. No. 2 oil is stored in two tanks having capacities of 20,000 gallons each.
3. Three diesel Electric Generating Units that are located on the site contain fuel oil and lubricating oil piping systems.

C. OIL SPILL PROTECTION INCORPORATED IN THE FACILITY DESIGN

1. The fuel oil storage tanks are constructed in conformance with the applicable A.P.I. code. The tanks are protected against spillage by an earthen dike designed to contain the entire contents of the tank.
2. The terminal end of the fuel oil unloading line is protected by collision guards, check valve, shutoff valve, cap and drain sump for the fill hose. Delivery instructions are conspicuously posted at the fill connection.
3. Fuel oil and lubricating oil piping is constructed in conformance with the applicable ASME code.

4. Waste oil is dumped into drums which are routinely emptied by a waste oil disposal truck.
5. The site is covered with a four (4) inch layer of crushed stone, so that the spread of potential oil spills is controlled.
6. The plant area is protected from unauthorized land site entry by a chain link fence topped with barbed wire. All entrance gates are securely locked. Effective area lighting affords additional protection.

D. OIL SPILL HISTORY

1. Regulation 40 CFR 112 requires inclusion in the SPCC Plan of a written description of spill events experienced within 12 months prior to the effective date of the regulation.
2. There were no oil spills at this location within 12 months prior to January 10, 1974.

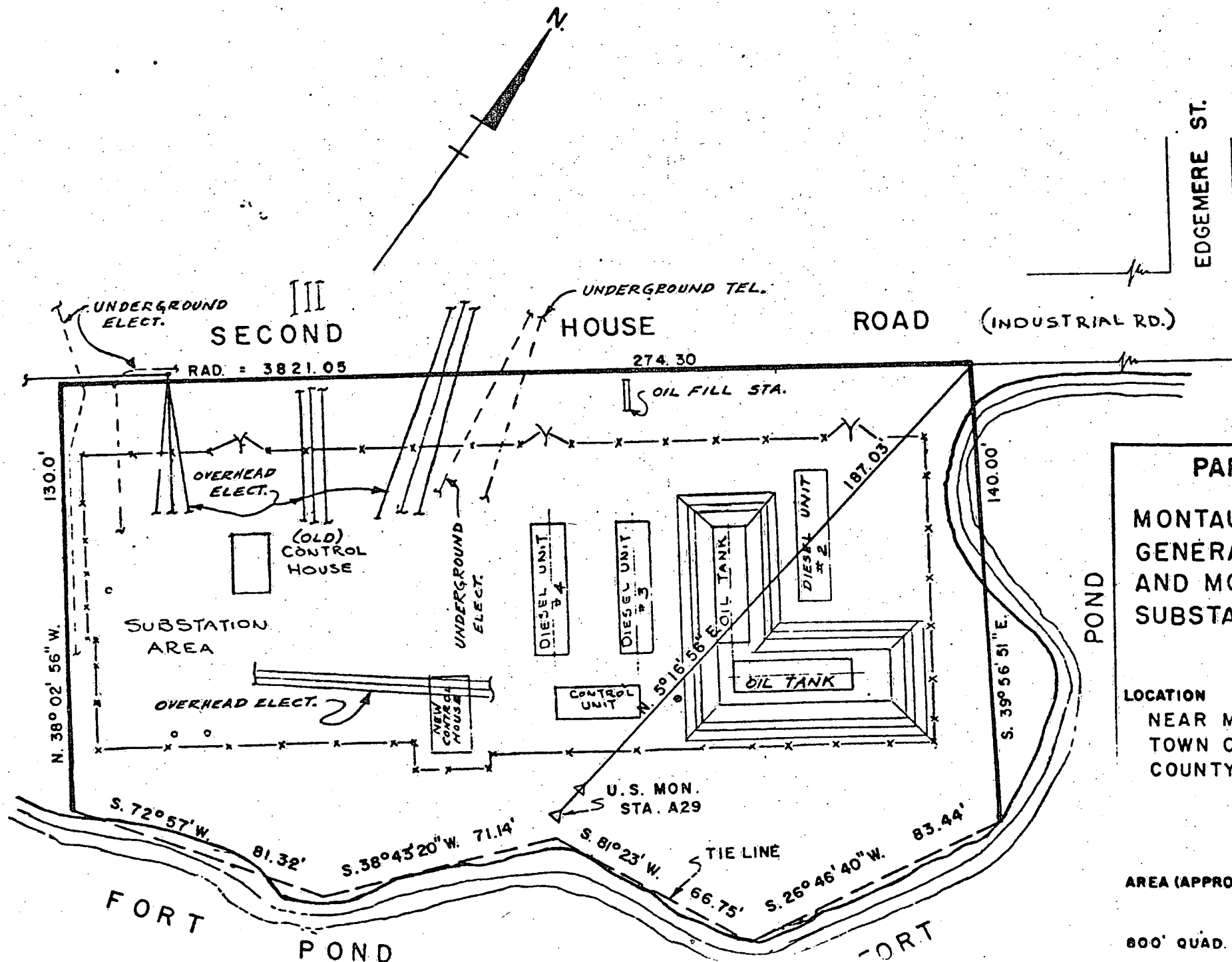
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3. The SPCC Plan will be reviewed annually to determine what revisions are necessary.
4. Oil drain valves will always have outlet plugs and critical valves will be locked.
5. Entrance gates will remain locked when not in use. Area lighting maintenance will be given high priority.

6. In the event of an oil spill, ultimate measures will be undertaken to prevent the discharge of oil into navigable waters. Potential means employed include sand bagging of storm sewers, excavating temporary containment sumps, shutting down sump pumps or any other means that are required.

F. FUEL OIL SPILL CONTINGENCY PLAN

In the event that oil is discharged into navigable waters the FUEL OIL SPILL CONTINGENCY PLAN shall govern.



EDGEMERE ST.

PARCEL No 7

MONTAUK DIESEL
GENERATING SITE
AND MONTAUK
SUBSTATION SITE

LOCATION
NEAR MONTAUK
TOWN OF EAST HAMP
COUNTY OF SUFFOLK

AREA (APPROX.) 42,266 SQ

800' QUAD. NO. 134

OIL SPILL PREVENTION CONTROL
AND
COUNTERMEASURE PLAN FOR
ELECTRICAL SUBSTATION FACILITIES

of the

LONG ISLAND LIGHTING CO.

As Required By

The Environmental Protection Agency
Regulations on Oil Pollution Prevention
Non-Transportation Related On Shore and
Offshore Facilities 40CFR 112, 38FR34164,
December 11, 1973.

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Attachment: EPA Regulations on Oil Pollution
Prevention

OIL SPILL PREVENTION CONTROL
AND
COUNTERMEASURE PLAN FOR
ELECTRICAL SUBSTATION FACILITIES

As Required BY

The Environmental Protection Agency Regulations on
Oil Pollution Prevention Non-Transportation Related
Onshore and Offshore Facilities 40CFR 112, 38FR34164,
December 11, 1973.

Spill Prevention Control and Countermeasure Plan

1. Introduction

This Spill Prevention Control and Countermeasure Plan has been prepared for use in electrical substation facilities throughout the Long Island Lighting Company system. Its purpose is to alert personnel to potential problems that could develop as a direct result of an oil spill and to formulate effective control measures to minimize, control and contain an oil spill. This document provides a means for quick clean-up of an oil spill should it occur. A copy of the EPA Regulations on Oil Pollution Prevention is attached.

2. Description of Facility

Substations operating on the Long Island Lighting Co. system are normally facilities that transform voltage from one value to another. In most cases, this transformation will be to a voltage suitable for use at the point of demand. These facilities have enclosed areas varying in size from less than 0.25 acre for some smaller, older substations to approximately 35 acres for larger substations. The average size is an enclosed area of approximately one to two acres.

3. Source of Spills

For the purpose of this document concern will be limited to equipment used in substations that contain enough oil to cause a significant problem. Equipment of this type will include transformers, transmission oil circuit breakers, and oil storage equipment for high voltage pipe type cables with capacities as described in Part 112, Section 112.1, Paragraph d, Subparagraph 2 of the Code of Federal Regulations.

3. Source of Spills (Cont'd.)

Equipment of this classification can be the source of an oil spill because of the following reasons:

a. Oil handling

In placing small transformers or breakers in service or in maintaining them, it is necessary to transfer insulating oil to and/or from the equipment and, in the process, it is possible that an oil spill, usually of very minor significance, could occur as this oil transfer procedure is normally carried out using 55 gallon drums.

In placing large transformers, breakers, or pipe type cable oil storage equipment in service or in maintaining them, two other means of oil transfer are by tank truck with capacities up to 6,000 gallons or rubber pillow type containers with capacities up to 5,000 gallons. In the first method, a broken hose or a loose connection could result in an insignificant oil spill. In the latter case, the rubber container could be punctured; however, we would anticipate resulting oil seepage to be restricted to a small volume.

Personnel involved in the handling of oil are thoroughly trained in procedure and safety. The installation of a transformer sometimes requires two or three days. During this time, constant watch is maintained on the process to minimize the possibility of a malfunction and an undetected oil spill.

b. Faulted equipment

Extreme system conditions sometimes arise that cause power equipment, transformers and oil circuit breakers, to operate beyond their normal capability. Operating under overstressed conditions can cause equipment failure. Usually this involves internal damage in the vessel and there is no oil spillage. However, if unusual circumstances occur where protective equipment fails resulting in an explosion, a tank rupture could result in a rare instance.

Over the past 25 years, LILCO has experienced very few cases where an explosion ruptured a tank resulting in an oil spill. In two instances, 13kV breakers exploded releasing only 25 gallons of oil in each case. The

3. Source of Spills (Cont'd.)

failures of two 138kV potential transformers resulted in loss of only about 35 gallons of oil in each case. In another instance, a large 138kV regulator failed and as the result of a tank crack seepage of about 100 gallons of oil occurred; in another case, one of three tanks of a 138kV breaker ruptured releasing about 1,000 gallons of oil.

LILCO is unaware of any instance where a power transformer failure resulted in a tank rupture and associated oil spill in a substation. If a transformer were to fail, a tank rupture is highly unlikely, but if it were to occur, it is likely a seam would split and oil would seep out rather than an occurrence where a large hole would result spilling all oil at once.

A review of experience of current responsible personnel indicates that LILCO has not had a substation equipment oil spill in which the oil reached navigable water.

c. Vandalism and Sabotage

LILCO is unaware of a situation where vandalism or sabotage resulted in an oil spill.

As a result of labor problems, acts of vandalism and sabotage might occur. Such acts could take the form of shooting holes in equipment or breaking substation security and opening drain valves on power equipment. Insulating oil will then leak from the tank until the equipment fails.

4. Compliance with Guidelines

We have reviewed the 171 substations on the LILCO system and determined that at only 18 substations can an oil spill result in oil reaching navigable water. Because of LILCO's experience, as previously related, which indicates we have had only one significant oil spill in 25 years, and oil did not reach navigable waters; it is concluded that because of the extremely low probability of discharge of a harmful quantity of oil, expenditure of capital money to install berms and permanent containment facilities is not justified.

4. Compliance with Guidelines (Cont'd.)

In the event of a significant oil spill, the necessary manpower and equipment is available on the LILCO system to prevent oil from reaching navigable waters and to contain oil if it does reach navigable waters. The responsible party, the Substation Maintenance Section Supervisor, has the authority to mobilize necessary manpower and equipment to contain any spill.

5. Preventing Spills

The Long Island Lighting Co. uses various methods to prevent oil spills from occurring and to confine them to the general area of the equipment involved should they occur. Oil leaks can be costly not only from loss of equipment but also loss in revenues resulting from equipment outages. Because substations are normally unmanned, there is no oil spill equipment (pumps, absorbents, skimmers, etc.) located at the facility. The measures used to cope with oil spill problems are listed below.

a. Protective Relaying

All transformers and oil circuit breakers are protected by relays or fuses which are capable of clearing faults before serious structural damage to the tank can result. The danger of pressure building up inside a transformer tank to the point of rupture is virtually eliminated by the use of mechanical pressure relief devices. These devices are diaphragms mounted directly on the tank and remain sealed during normal operation. If pressure begins to build inside the tank, this pressure pushes open the relief device, which is calibrated to open only upon reaching a certain pressure, relieving excess pressure and the resultant strain on the tank.

Another method used to guard against possible oil spills is the use of automatic alarms on transformers. Low oil level alarms give an indication that the insulating oil is down from its normal level. These alarms are transmitted to the Electric System Operations Control Center by supervisory equipment and immediate action is taken to investigate the potential trouble area by dispatching personnel to the substation.

b. Trained Personnel

LILCO personnel are thoroughly trained in work methods dealing with the transportation and handling of low viscosity insulating oil. Constant watch is maintained on all oil pumping processes, virtually eliminating the possibility of an oil spill.

5. Preventing Spills (Cont'd.)

c. Absorbitive Dolomite Covering

A majority of the existing substations on the LILCO system are covered with a four (4) inch layer of crushed rock. This cover will absorb and coagulate spilled oil thus impeding its flow and limiting the area that a spill might cover.

d. Observation by Company Personnel

Substations receive frequent visits from company personnel. Although substations aren't normally manned, personnel are in the facility on scheduled visits to read meters, change charts, or routine check. These people are trained to look for oil leaks, broken porcelain, low oil levels, high temperature readings and report anything of a suspicious nature to the System Operator on duty 24 hours a day.

e. Security

The first line of security for LILCO's substations is a 7 foot high fence topped with double barbed wire on 45 degree brackets. Service gates are securely chained to prevent unauthorized entry. During pending emergency situations, LILCO enters into an Emergency Operations Procedure. All personnel involved in this Procedure are well trained in spotting and reporting unusual situations. These actions discourage break-ins and provides a means for immediate reaction to any oil spill occurrence.

6. Substation Categories

The 171 substations presently operating on the LILCO Power Company system are located in many different areas, with varied water conditions around the property. These properties have been categorized into different groupings, dependent upon proximity to certain types of navigable waters.

a. Group I - substation fence adjacent to navigable water.

b. Group II - substation fence adjacent to a street where storm sewers are located which would eventually carry the oil spill into navigable water.

c. Group III - substation fence adjacent to a canal or large drainage ditch which eventually flows into navigable waters.

6. Substation Categories (Cont'd.)

- d. Group IV - substation fence not adjacent to any source of navigable water and where an oil spill could not reach navigable waters.

The clean-up plan to be followed after a spill will be determined by the category into which the substation has been placed. Responsibility for categorizing all substations into their appropriate category remains in the Substation Operations Division of LILCO.

7. Oil Spill Contingency Plan

In the event of an oil spill, the following general procedures will be followed:

Group 1 - Substations (Refer to Appendix)

- a. The person reporting the spill shall notify the Electric System Operator in Hicksville on numbers WE1-6380 and WE8-2230.
- b. The Electric System Operator will determine the extent of the oil spill and notify the appropriate parties as follows:

Electric Systems Operating Personnel		Office Phone	Home Phone
Queens	J. P. Davis	791-7574	569-1724
Nassau	S. T. Mulligan	733-4712	581-1777
Suffolk	W. B. Ashauer	348-6224, 369-3045	727-3207
All Areas	F. L. Farkas	733-4735	742-0245
	C. J. Costa	733-4009	PY9-8103
	H. A. Mahlmann	733-4011	MO9-4515

In addition to the above, the substation Maintenance Supervisor will be called by the Electric System Operator. The telephone numbers are kept in an up-to-date list in the possession of the System Operator.

- c. The following information will be furnished to the above people by the Electric System Operator:
 1. Name of person reporting spill
 2. Name of facility and location
 3. Time of spill
 4. Cause of spill
 5. Type and amount of spill
 6. Type of carrier (rail, truck, etc.)
 7. Nature of area surrounding spill (lake, river, etc.)

7. Oil Spill Contingency Plan (Cont'd.)

d. The Substation Maintenance Section Supervisor will then activate preventive measures as follows:

1. If the spill is in open water, he will determine whether contract crews and their equipment should be called to the scene.
2. He will call out necessary contract crews and equipment.
3. He will call out necessary LILCO crews and equipment.

e. The Electric System Operator or his designee shall at his discretion notify the following:

	<u>Office Phone - Ext.</u>	<u>Home Phone</u>
1. J. W. Dye, Jr. Senior Vice President	733-4127 (Centrex)	922-4742
2. J. G. Gummersall, Jr. Vice President	733-4122	759-9657
3. W. H. Underwood, Manager Electric System Operation Dept.	733-4171	AN6-3611
4. P. B. Simoni, Manager Construction, Sub. Maint. Shops Dept.	733-4020	423-4266

f. The Electric System Operator or his designee shall notify the following:

Coast Guard Duty Officer,
(Governor's Island) 24 Hour Phone: 212-264-8770

g. If the Coast Guard does not answer, the following shall be notified:

Environmental Protection Agency
(EPA), for NY and NJ. 24 Hour
Answering Service, or official: 201-548-8730

h. Although not required by law, the following New York agency would like to be notified:

7. Oil Spill Contingency Plan (Cont'd.)

NY State Dept. Environmental Conservation,
Div. of Pure Waters, 24 Hr. Phone: 518-457-7362

The information gathered in Section c for Group 1 substations shall be available for the above agencies.

Group 11 - Substations (Refer to Appendix)

Same as Group 1

Group 111 - Substations (Refer to Appendix)

- a. The Substation Maintenance Section Supervisor will determine if sandbagging or otherwise blocking the storm sewers would prevent the spill from eventually reaching open water.
- b. Follow all steps listed under Group 1.

Group 1V - Substations

- a. Since an oil spill at these installations can get into navigable waterways, normal procedures for oil spill cleanup can be used.
 1. Use pump to remove oil pools
 2. Use absorbent material
 3. Remove contaminated soil, rock and deposit uncontaminated soil and gravel where applicable.

Joe H. Caveglia

Joe H. Caveglia, P.E.
Manager Substation Engineering Division
Long Island Lighting Company



Joe H. Caveglia
Dec 12, 1974

Appendix

LILCO Substations at which an oil spill can result in oil reaching navigable waters.

Group I - Substation fence adjacent to navigable water

- 4YH Glenwood
- 9U Montauk
- 5H Oyster Bay
- 2M Long Beach

Group II - Substation fence adjacent to a street where storm sewers are located which would eventually carry the oil spill into navigable water

- 2Z Atlantic Beach
- 5GK Locust Valley
- 2W Central Avenue
- 2GB Gibson
- 5WK Jericho
- 3MG Malverne
- 2V Oceanside
- 4W Roosevelt
- 4S Stewart Manor

Group III - Substation fence adjacent to a canal or large drainage ditch which eventually flows into navigable water

- 8AX Patchogue
- 2MA Woodmere
- 8B Peconic
- 9A Riverhead
- 7R Sayville

Register Order

TUESDAY, DECEMBER 11, 1973
WASHINGTON, D.C.

Volume 33 ■ Number 237

PART II



ENVIRONMENTAL PROTECTION AGENCY

OIL POLLUTION PREVENTION

Non-Transportation Related Onshore
and Offshore Facilities

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL
PROTECTION AGENCY

SUBCHAPTER D—WATER PROGRAMS

PART 112—OIL POLLUTION PREVENTION

Non-transportation Related Onshore and
Offshore Facilities

Notice of proposed rule making was published on July 19, 1973, containing proposed regulations, required by an pursuant to section 311(j)(1)(C) of the Federal Water Pollution Control Act, as amended (86 Stat. 863, 33 U.S.C. 1251 et seq.), (FWPCA), to prevent discharges of oil into the navigable waters of the United States and to contain such discharges if they occur. The proposed regulations endeavor to prevent such spills by establishing procedures, methods and equipment requirements of owners or operators of facilities engaged in drilling, producing, gathering, storing, processing, refining, transferring, distributing, or consuming oil.

Written comments on the proposed regulations were solicited and received from interested parties. In addition, a number of verbal comments on the proposal were also received. The written comments are on file at the Division of Oil and Hazardous Materials, Office of Water Program Operations, U.S. Environmental Protection Agency, Washington, D.C.

All of the comments have been given careful consideration and a number of changes have been made in the regulation. These changes incorporate either suggestions made in the comments or ideas initiated by the suggestions.

Some comments reflected a misunderstanding of the fundamental principles of the regulation, specifically as they applied to older facilities and marginal operations. During the development of the regulation it was recognized that no single design or operational standard can be prescribed for all non-transportation related facilities, since the equipment and operational procedures appropriate for one facility may not be appropriate for another because of factors such as function, location, and age of each facility. Also, new facilities could achieve a higher level of spill prevention than older facilities by the use of fail-safe design concepts and innovative spill prevention methods and procedures. It was concluded that older facilities and marginal operations could develop strong spill contingency plans and commit manpower, oil containment devices and removal equipment to compensate for inherent weaknesses in the spill prevention plan.

Appropriate changes were made in the regulation to simplify, clarify or correct deficiencies in the proposal.

A discussion of these changes, section by section follows:

A. Section 112.1—General applicability. Section 112.1(b), the "foreseeability provision", contained in 112.1(d)(4) was added to paragraph 112.1(b). As modified, the regulation applies to non-transportation-related onshore and offshore facilities which, due to their loca-

tion, could reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines.

Sections 112.1(b), 112.1(d)(4) and 112.3 are now consistent.

Section 112.1(d)(1) was expanded to further clarify the respective authorities of the Department of Transportation and the Environmental Protection Agency by referring to the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency (Appendix).

Section 112.1(d)(2), the figure for barrels was converted to gallons, a unit of measure more familiar to the public, and now reads "42000 gallons."

Section 112.1(d)(3), exemption for facilities with nonburied tankage was extended to 1320 gallons in aggregate with no single tank larger than 660 gallons and applies to all oils, not just heating oil and motor fuel. Tanks of 660 gallons are the normal domestic code size for nonburied heating oil tanks. Buildings may have two such tanks. Facilities containing small quantities of oil other than motor fuel or heating oil would also be exempt, thus making this consistent with the definition of oil in § 112.2.

B. Section 112.2—Definitions. Section 112.2(1), the term "navigable waters" was expanded to the more descriptive definition used by the National Pollutant Discharge Elimination System.

Section 112.2(m), the U.S. Coast Guard definition of the term "vessel" was included. This term is used in the regulation and the definition is consistent with the Department of Transportation regulations.

C. Section 112.3—Requirements for the preparation and implementation of spill prevention control and countermeasure plans. A new paragraph (c) was added to § 112.3 which applies to mobile or portable facilities subject to the regulation. These facilities need not prepare a new Spill Prevention Control and Countermeasure Plan (SPCC Plan) each time the facility is moved to a new site, but may prepare a general plan, identifying good spill prevention engineering practices as outlined in the guidelines, § 112.7, and implement these practices at each new location.

Section 112.3(a), (b) and (f) (which was § 112.3(e) in the proposed rule making) have been modified to allow extensions of time beyond the normally specified periods to apply to the preparation of plans as well as to their implementation and to remove the time limitation of one year for extensions. Extensions may be allowed for whatever period of time considered reasonable by the Regional Administrator.

Section 112.3(e) (which was § 112.3(d) in the proposed rule making) was modified to require the maintenance of the SPCC Plan for inspection at the facility only if the facility was normally manned. If the facility is unmanned, the Plan may be kept at the nearest field office.

Section 112.3(f)(1) (§ 112.3(e)(1) in the proposed regulation) was changed to include the nonavailability of qualified personnel as a reason for the Regional Administrator granting an extension of time.

D. Section 112.4—Amendment of spill prevention control and countermeasure plans by Regional Administrator. Section 112.4(a)(11), permits the Regional Administrator to require that the owner or operator furnish additional information to EPA after one or more spill event has occurred. The change limits the request for additional information to that pertinent to the SPCC Plan or to the pollution incident.

Section 112.4(b) now reads "Section 112.4 . . . not "This subsection . . ."

Section 112.4(e) allowed the Regional Administrator to require amendments to SPCC Plans and specifies that the amendment must be incorporated in the Plan within 30 days unless the Regional Administrator specifies an earlier effective date. The change allows the Regional Administrator to specify any appropriate date that is reasonable.

Section 112.4(f). A new § 112.4(f) has been added which provides for an appeal by an owner or operator from a decision rendered by the Regional Administrator on an amendment to an SPCC Plan. The appeal is made to the Administrator of EPA and the paragraph outlines the procedures for making such an appeal.

E. Section 112.5—Amendment of spill prevention control and countermeasure plans by owners or operators. Section 112.5(b) required the owner or operator to amend the SPCC Plan every three years. The amendment required the incorporation of any new, field-proven technology and had to be certified by a Professional Engineer.

The change requires that the owner or operator review the Plan every three years to see if it needs amendment. New technology need be incorporated only if it will significantly reduce the likelihood of a spill. The change will prevent frivolous retrofitting of equipment to facilities whose prevention plans are working successfully, and will not require engineering certification unless an amendment is necessary.

Section 112.5(c), this paragraph required that the owner or operator amend his SPCC Plan when his facility became subject to § 112.4 (amendment by the Regional Administrator). This paragraph has been removed. It is inconsistent to require the owner or operator to independently amend the Plan while the Regional Administrator is reviewing it for possible amendment.

F. Section 112.6—Civil penalties. There are no changes in this section.

G. Section 112.7—Guidelines for the preparation and implementation of a spill prevention control and countermeasure plan. Numerous changes have been made in the guidelines section; the changes have been primarily:

1. To correct the use of language inconsistent with guidelines. For example, the word "shall" has been changed to "should" in § 112.7(a) through (e).

2. To give the engineer preparing the Plan greater latitude to use alternative methods better suited to a given facility or local conditions.

3. To cover facilities subject to the regulation, but for which no guidelines were previously given. This category includes such things as mobile facilities, and drilling and workover rigs.

In addition, wording was changed to differentiate between periodic observations by operating personnel and formal inspections with attendant record keeping.

These regulations shall become effective January 10, 1974.

Dated: November 27, 1973.

JOHN QUARLES,
Acting Administrator.

A new Part 112 would be added to subchapter D, Chapter I of Title 40, Code of Federal Regulations as follows:

- Sec.
- 112.1 General applicability.
 - 112.2 Definitions.
 - 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.
 - 112.4 Amendment of Spill Prevention Control and Countermeasure Plans by Regional Administrator.
 - 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.
 - 112.6 Civil penalties.
 - 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

Appendix Memorandum of Understanding Between the Secretary of the Department of Transportation and the Administrator of the Environmental Protection Agency, Section II—Definitions.

AUTHORITY: Secs. 311(j)(1)(C), 311(j)(2), 501(a), Federal Water Pollution Control Act (Sec. 2, Pub. L. 92-500, 86 Stat. 816 et seq. (33 U.S.C. 1251 et seq.)); Sec. 4(b), Pub. L. 92-500, 86 Stat. 897; 5 U.S.C. Reorg. Plan of 1970 No. 3 (1970), 35 FR 15623, 3 CFR 1956-1970 Comp.; E.O. 11735, 38 FR 21243, 3 CFR.

§ 112.1 General applicability.

(a) This part establishes procedures, methods and equipment and other requirements for equipment to prevent the discharge of oil from non-transportation-related onshore and offshore facilities into or upon the navigable waters of the United States or adjoining shorelines.

(b) Except as provided in paragraph (d) of this section, this part applies to owners or operators of non-transportation-related onshore and offshore facilities engaged in drilling, production, gathering, storing, processing, refining, transferring, distributing or burning oil and oil products, and which, due to their location, could reasonably be expected to discharge oil in harmful quantities, as defined in Part 110 of this chapter, into or upon the navigable waters of the United States or adjoining shorelines.

(c) As provided in sec. 313 (86 Stat. 875) departments, agencies, and instrumentalities of the Federal government

are subject to these regulations to the same extent as any person, except for the provisions of § 112.6.

(d) This part does not apply to:

(1) Equipment or operations of vessels or transportation-related onshore and offshore facilities which are subject to authority and control of the Department of Transportation, as defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24000.

(2) Facilities which have an aggregate storage of 1320 gallons or less of oil, provided no single container has a capacity in excess of 660 gallons.

(3) Facilities which have a total storage capacity of 42000 gallons or less of oil and such total storage capacity is buried underground.

(4) Non-transportation-related onshore and offshore facilities, which, due to their location, could not reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines.

(e) This part provides for the preparation and implementation of Spill Prevention Control and Countermeasure Plans prepared in accordance with § 112.7, designed to complement existing laws, regulations, rules, standards, policies and procedures pertaining to safety standards, fire prevention and pollution prevention rules, so as to form a comprehensive balanced Federal/State spill prevention program to minimize the potential for oil discharges. Compliance with this part does not in any way relieve the owner or operator of an onshore or an offshore facility from compliance with other Federal, State or local laws.

§ 112.2 Definitions.

For the purposes of this part:

(a) "Oil" means oil of any kind or in any form, including, but not limited to petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil.

(b) "Discharge" includes but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping. For purposes of this part, the term "discharge" shall not include any discharge of oil which is authorized by a permit issued pursuant to Section 13 of the River and Harbor Act of 1899 (30 Stat. 1121, 33 U.S.C. 407), or Sections 402 or 405 of the FWPCA Amendments of 1972 (86 Stat. 816 et seq., 33 U.S.C. 1251 et seq.).

(c) "Onshore facility" means any facility of any kind located in, on, or under any land within the United States, other than submerged lands, which is not a transportation-related facility.

(d) "Offshore facility" means any facility of any kind located in, on, or under any of the navigable waters of the United States, which is not a transportation-related facility.

(e) "Owner or operator" means any person owning or operating an onshore facility or an offshore facility, and in the

case of any abandoned offshore facility, the person who owned or operated such facility immediately prior to such abandonment.

(f) "Person" includes an individual, firm, corporation, association, and a partnership.

(g) "Regional Administrator" means the Regional Administrator of the Environmental Protection Agency, or his designee, in and for the Region in which the facility is located.

(h) "Transportation-related" and "non-transportation-related" as applied to an onshore or offshore facility, are defined in the Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency, dated November 24, 1971, 36 FR 24080.

(i) "Spill event" means a discharge of oil into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities, as defined at 40 CFR Part 110.

(j) "United States" means the States, the District of Columbia, the Commonwealth of Puerto Rico, the Canal Zone, Guam, American Samoa, the Virgin Islands, and the Trust Territory of the Pacific Islands.

(k) The term "navigable waters" of the United States means "navigable waters" as defined in section 502(7) of the FWPCA, and includes:

(1) all navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA (Pub. L. 92-500), and tributaries of such waters;

(2) interstate waters;

(3) intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; and

(4) intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce.

(l) "Vessel" means every description of watercraft or other artificial contrivance used, or capable of being used as a means of transportation on water, other than a public vessel.

§ 112.3 Requirements for preparation and implementation of Spill Prevention Control and Countermeasure Plans.

(a) Owners or operators of onshore and offshore facilities in operation on or before the effective date of this part that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare a Spill Prevention Control and Countermeasure Plan (hereinafter "SPCC Plan"), in accordance with § 112.7. Except as provided for in paragraph (d) of this section, such SPCC Plan shall be prepared within six months after the effective date of this part and shall be fully implemented as soon as possible, but not later than one year after the effective date of this part.

(b) Owners or operators of onshore and offshore facilities that become operational after the effective date of this section and that have discharged or could reasonably be expected to discharge oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines, shall prepare an SPCC Plan in accordance with § 112.7. Except as provided for in paragraph (f) of this section, such SPCC Plan shall be prepared within six months after the date such facility begins operations and shall be fully implemented as soon as possible, but not later than one year after such facility begins operations.

(c) Onshore and offshore mobile or portable facilities such as onshore drilling or workover rigs, barge mounted offshore drilling or workover rigs, and portable fueling facilities shall prepare and implement an SPCC Plan as required by paragraphs (a), (b) and (d) of this section. The owner or operator of such facility need not prepare and implement a new SPCC Plan each time the facility is moved to a new site. The SPCC Plan for mobile facilities should be prepared in accordance with § 112.7, using good engineering practice, and when the mobile facility is moved it should be located and installed using spill prevention practices outlined in the SPCC Plan for the facility. The SPCC Plan shall only apply while the facility is in a fixed (non transportation) operating mode.

(d) No SPCC Plan shall be effective to satisfy the requirements of this part unless it has been reviewed by a Registered Professional Engineer and certified to by such Professional Engineer. By means of this certification the engineer, having examined the facility and being familiar with the provisions of this part, shall attest that the SPCC Plan has been prepared in accordance with good engineering practices. Such certification shall in no way relieve the owner or operator of an onshore or offshore facility of his duty to prepare and fully implement such Plan in accordance with § 112.7, as required by paragraphs (a), (b) and (c) of this section.

(e) Owners or operators of a facility for which an SPCC Plan is required pursuant to paragraphs (a), (b) or (c) of this section shall maintain a complete copy of the Plan at such facility if the facility is normally attended at least 8 hours per day, or at the nearest field office if the facility is not so attended, and shall make such Plan available to the Regional Administrator for on-site review during normal working hours.

(f) Extensions of time.

(1) The Regional Administrator may authorize an extension of time for the preparation and full implementation of an SPCC Plan beyond the time permitted for the preparation and implementation of an SPCC Plan pursuant to paragraphs (a), (b) or (c) of this section where he finds that the owner or operator of a facility subject to paragraphs (a), (b) or (c) of this section cannot fully com-

ply with the requirements of this part as a result of either nonavailability of qualified personnel, or delays in construction or equipment delivery beyond the control and without the fault of such owner or operator or their respective agents or employees.

(2) Any owner or operator seeking an extension of time pursuant to paragraph (f) (1) of this section may submit a letter of request to the Regional Administrator. Such letter shall include:

(i) A complete copy of the SPCC Plan, if completed;

(ii) A full explanation of the cause for any such delay and the specific aspects of the SPCC Plan affected by the delay;

(iii) A full discussion of actions being taken or contemplated to minimize or mitigate such delay;

(iv) A proposed time schedule for the implementation of any corrective actions being taken or contemplated, including interim dates for completion of tests or studies, installation and operation of any necessary equipment or other preventive measures.

In addition, such owner or operator may present additional oral or written statements in support of his letter of request.

(3) The submission of a letter of request for extension of time pursuant to paragraph (f) (2) of this section shall in no way relieve the owner or operator from his obligation to comply with the requirements of § 112.3 (a), (b) or (c). Where an extension of time is authorized by the Regional Administrator for particular equipment or other specific aspects of the SPCC Plan, such extension shall in no way affect the owner's or operator's obligation to comply with the requirements of § 112.3 (a), (b) or (c) with respect to other equipment or other specific aspects of the SPCC Plan for which an extension of time has not been expressly authorized.

§ 112.4 Amendment of SPCC Plans by Regional Administrator.

(a) Notwithstanding compliance with § 112.3, whenever a facility subject to § 112.3 (a), (b) or (c) has: Discharged more than 1,000 U.S. gallons of oil into or upon the navigable waters of the United States or adjoining shorelines in a single spill event, or discharged oil in harmful quantities, as defined in 40 CFR Part 110, into or upon the navigable waters of the United States or adjoining shorelines in two spill events, reportable under section 311(b) (5) of the FWPCA, occurring within any twelve month period, the owner or operator of such facility shall submit to the Regional Administrator, within 60 days from the time such facility becomes subject to this section, the following:

(1) Name of the facility;

(2) Name(s) of the owner or operator of the facility;

(3) Location of the facility;

(4) Date and year of initial facility operation;

(5) Maximum storage or handling capacity of the facility and normal daily throughput;

(6) Description of the facility, including maps, flow diagrams, and topographical maps;

(7) A complete copy of the SPCC Plan with any amendments;

(8) The cause(s) of such spill, including a failure analysis of system or subsystem in which the failure occurred;

(9) The corrective actions and/or countermeasures taken, including an adequate description of equipment repairs and/or replacements;

(10) Additional preventive measures taken or contemplated to minimize the possibility of recurrence;

(11) Such other information as the Regional Administrator may reasonably require pertinent to the Plan or spill event.

(b) Section 112.4 shall not apply until the expiration of the time permitted for the preparation and implementation of an SPCC Plan pursuant to § 112.3 (a), (b), (c) and (f).

(c) A complete copy of all information provided to the Regional Administrator pursuant to paragraph (a) of this section shall be sent at the same time to the State agency in charge of water pollution control activities in and for the State in which the facility is located. Upon receipt of such information such State agency may conduct a review and make recommendations to the Regional Administrator as to further procedures, methods, equipment and other requirements for equipment necessary to prevent and to contain discharges of oil from such facility.

(d) After review of the SPCC Plan for a facility subject to paragraph (a) of this section, together with all other information submitted by the owner or operator of such facility, and by the State agency under paragraph (c) of this section, the Regional Administrator may require the owner or operator of such facility to amend the SPCC Plan if he finds that the Plan does not meet the requirements of this part or that the amendment of the Plan is necessary to prevent and to contain discharges of oil from such facility.

(e) When the Regional Administrator proposes to require an amendment to the SPCC Plan, he shall notify the facility operator by certified mail addressed to, or by personal delivery to, the facility owner or operator, that he proposes to require an amendment to the Plan, and shall specify the terms of such amendment. If the facility owner or operator is a corporation, a copy of such notice shall also be mailed to the registered agent, if any, of such corporation in the State where such facility is located. Within 30 days from receipt of such notice, the facility owner or operator may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Administrator shall notify the facility owner or operator of any amendment required or shall rescind the notice. The amendment required by the Regional Administrator shall become part of the Plan 30 days

after such notice, unless the Regional Administrator, for good cause, shall specify another effective date. The owner or operator of the facility shall implement the amendment of the Plan as soon as possible, but not later than six months after the amendment becomes part of the Plan, unless the Regional Administrator specifies another date.

(f) An owner or operator may appeal a decision made by the Regional Administrator requiring an amendment to an SPCC Plan. The appeal shall be made to the Administrator of the United States Environmental Protection Agency and must be made in writing within 30 days of receipt of the notice from the Regional Administrator requiring the amendment. A complete copy of the appeal must be sent to the Regional Administrator at the time the appeal is made. The appeal shall contain a clear and concise statement of the issues and points of fact in the case. It may also contain additional information which the owner or operator wishes to present in support of his argument. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee may request additional information from the owner or operator, or from any other person. The Administrator or his designee shall render a decision within 60 days of receiving the appeal and shall notify the owner or operator of his decision.

§ 112.5 Amendment of Spill Prevention Control and Countermeasure Plans by owners or operators.

(a) Owners or operators of facilities subject to § 112.3 (a), (b) or (c) shall amend the SPCC Plan for such facility in accordance with § 112.7 whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential for the discharge of oil into or upon the navigable waters of the United States or adjoining shorelines. Such amendments shall be fully implemented as soon as possible, but not later than six months after such change occurs.

(b) Notwithstanding compliance with paragraph (a) of this section, owners and operators of facilities subject to § 112.3 (a), (b) or (c) shall complete a review and evaluation of the SPCC Plan at least once every three years from the date such facility becomes subject to this part. As a result of this review and evaluation, the owner or operator shall amend the SPCC Plan within six months of the review to include more effective prevention and control technology if:

- (1) Such technology will significantly reduce the likelihood of a spill event from the facility, and
- (2) If such technology has been field-proven at the time of the review.

(c) No amendment to an SPCC Plan shall be effective to satisfy the requirements of this section unless it has been certified by a Professional Engineer in accordance with § 112.3(d).

§ 112.6 Civil penalties.

Owners or operators of facilities subject to § 112.3 (a), (b) or (c) who violate the requirements of this part by failing or refusing to comply with any of the provisions of § 112.3, § 112.4, or § 112.5 shall be liable for a civil penalty of not more than \$5,000 for each day that such violation continues. The Regional Administrator may assess and compromise such civil penalty. No penalty shall be assessed until the owner or operator shall have been given notice and an opportunity for hearing.

§ 112.7 Guidelines for the preparation and implementation of a Spill Prevention Control and Countermeasure Plan.

The SPCC Plan shall be a carefully thought-out plan, prepared in accordance with good engineering practices, and which has the full approval of management at a level with authority to commit the necessary resources. If the plan calls for additional facilities or procedures, methods, or equipment not yet fully operational, these items should be discussed in separate paragraphs, and the details of installation and operational start-up should be explained separately. The complete SPCC Plan shall follow the sequence outlined below, and include a discussion of the facility's conformance with the appropriate guidelines listed:

(a) A facility which has experienced one or more spill events within twelve months prior to the effective date of this part should include a written description of each such spill, corrective action taken and plans for preventing recurrence.

(b) Where experience indicates a reasonable potential for equipment failure (such as tank overflow, rupture, or leakage), the plan should include a prediction of the direction, rate of flow, and total quantity of oil which could be discharged from the facility as a result of each major type of failure.

(c) Appropriate containment and/or diversionary structures or equipment to prevent discharged oil from reaching a navigable water course should be provided. One of the following preventive systems or its equivalent should be used as a minimum:

- (1) Onshore facilities.
 - (i) Dikes, berms or retaining walls sufficiently impervious to contain spilled oil
 - (ii) Curbing
 - (iii) Culverting, gutters or other drainage systems
 - (iv) Weirs, booms or other barriers
 - (v) Spill diversion ponds
 - (vi) Retention ponds
 - (vii) Sorbent materials
- (2) Offshore facilities.
 - (i) Curbing, drip pans
 - (ii) Sumps and collection systems
- (d) When it is determined that the installation of structures or equipment listed in § 112.7(c) to prevent discharged oil from reaching the navigable waters

is not practicable from any onshore or offshore facility, the owner or operator should clearly demonstrate such impracticability and provide the following:

(1) A strong oil spill contingency plan following the provision of 40 CFR Part 109.

(2) A written commitment of manpower, equipment and materials required to expeditiously control and remove any harmful quantity of oil discharged.

(e) In addition to the minimal prevention standards listed under § 112.7 (c), sections of the Plan should include a complete discussion of conformance with the following applicable guidelines, other effective spill prevention and containment procedures (or, if more stringent, with State rules, regulations and guidelines):

(1) *Facility drainage (onshore); (excluding production facilities).* (i) Drainage from diked storage areas should be restrained by valves or other positive means to prevent a spill or other excessive leakage of oil into the drainage system or inplant effluent treatment system, except where plan systems are designed to handle such leakage. Diked areas may be emptied by pumps or ejectors; however, these should be manually activated and the condition of the accumulation should be examined before starting to be sure no oil will be discharged into the water.

(ii) Flapper-type drain valves should not be used to drain diked areas. Valves used for the drainage of diked areas should, as far as practical, be of manual, open-and-closed design. When plant drainage drains directly into water courses and not into wastewater treatment plants, retained storm water should be inspected as provided in paragraph (e)(2)(iii) (B, C and D) before drainage.

(iii) Plant drainage systems from undiked areas should, if possible, flow into ponds, lagoons or catchment basins, designed to retain oil or return it to the facility. Catchment basins should not be located in areas subject to periodic flooding.

(iv) If plant drainage is not engineered as above, the final discharge of all in-plant ditches should be equipped with a diversion system that could, in the event of an uncontrolled spill, return the oil to the plant.

(v) Where drainage waters are treated in more than one treatment unit, natural hydraulic flow should be used. If pump transfer is needed, two "lift" pumps should be provided, and at least one of the pumps should be permanently installed when such treatment is continuous. In any event, whatever techniques are used facility drainage systems should be adequately engineered to prevent oil from reaching navigable waters in the event of equipment failure or human error at the facility.

(2) *Bulk storage tanks (onshore); (excluding production facilities).* (1) No

tank should be used for the storage of oil unless its material and construction are compatible with the material stored and conditions of storage such as pressure and temperature, etc.

(ii) All bulk storage tank installations should be constructed so that a secondary means of containment is provided for the entire contents of the largest single tank plus sufficient freeboard to allow for precipitation. Diked areas should be sufficiently impervious to contain spilled oil. Dikes, containment curbs, and pits are commonly employed for this purpose, but they may not always be appropriate. An alternative system could consist of a complete drainage trench enclosure arranged so that a spill could terminate and be safely confined in an in-plant catchment basin or holding pond.

(iii) Drainage of rainwater from the diked area into a storm drain or an effluent discharge that empties into an open water course, lake, or pond, and bypassing the in-plant treatment system may be acceptable if:

(A) The bypass valve is normally sealed closed.

(B) Inspection of the run-off rain water ensures compliance with applicable water quality standards and will not cause a harmful discharge as defined in 40 CFR 110.

(C) The bypass valve is opened, and resealed following drainage under responsible supervision.

(D) Adequate records are kept of such events.

(iv) Buried metallic storage tanks represent a potential for undetected spills. A new buried installation should be protected from corrosion by coatings, cathodic protection or other effective methods compatible with local soil conditions. Such buried tanks should at least be subjected to regular pressure testing.

(v) Partially buried metallic tanks for the storage of oil should be avoided, unless the buried section of the shell is adequately coated, since partial burial in damp earth can cause rapid corrosion of metallic surfaces, especially at the earth/air interface.

(vi) Aboveground tanks should be subject to periodic integrity testing, taking into account tank design (floating roof, etc.) and using such techniques as hydrostatic testing, visual inspection or a system of non-destructive shell thickness testing. Comparison records should be kept where appropriate, and tank supports and foundations should be included in these inspections. In addition, the outside of the tank should frequently be observed by operating personnel for signs of deterioration, leaks which might cause a spill, or accumulation of oil inside diked areas.

(vii) To control leakage through defective internal heating coils, the following factors should be considered and applied, as appropriate.

(A) The steam return or exhaust lines from internal heating coils which discharge into an open water course should be monitored for contamination, or passed through a settling tank, skimmer, or other separation or retention system.

(B) The feasibility of installing an external heating system should also be considered.

(viii) New and old tank installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to avoid spills. Consideration should be given to providing one or more of the following devices:

(A) High liquid level alarms with an audible or visual signal at a constantly manned operation or surveillance station; in smaller plants an audible air vent may suffice.

(B) Considering size and complexity of the facility, high liquid level pump cutoff devices set to stop flow at a predetermined tank content level.

(C) Direct audible or code signal communication between the tank gauger and the pumping station.

(D) A fast response system for determining the liquid level of each bulk storage tank such as digital computers, telepulse, or direct vision gauges or their equivalent.

(E) Liquid level sensing devices should be regularly tested to insure proper operation.

(ix) Plant effluents which are discharged into navigable waters should have disposal facilities observed frequently enough to detect possible system upsets that could cause an oil spill event.

(x) Visible oil leaks which result in a loss of oil from tank seams, gaskets, rivets and bolts sufficiently large to cause the accumulation of oil in diked areas should be promptly corrected.

(xi) Mobile or portable oil storage tanks (onshore) should be positioned or located so as to prevent spilled oil from reaching navigable waters. A secondary means of containment, such as dikes or catchment basins, should be furnished for the largest single compartment or tank. These facilities should be located where they will not be subject to periodic flooding or washout.

(3) *Facility transfer operations, pumping, and in-plant process (onshore)*; (excluding production facilities). (i) Buried piping installations should have a protective wrapping and coating and should be cathodically protected if soil conditions warrant. If a section of buried line is exposed for any reason, it should be carefully examined for deterioration. If corrosion damage is found, additional examination and corrective action should be taken as indicated by the magnitude of the damage. An alternative would be the more frequent use of exposed pipe corridors or galleries.

(ii) When a pipeline is not in service, or in standby service for an extended time the terminal connection at the transfer point should be capped or blank-flanged, and marked as to origin.

(iii) Pipe supports should be properly designed to minimize abrasion and corrosion and allow for expansion and contraction.

(iv) All aboveground valves and pipelines should be subjected to regular examinations by operating personnel at which time the general condition of items, such as flange joints, expansion

joints, valve glands and bodies, catch pans, pipeline supports, locking of valves, and metal surfaces should be assessed. In addition, periodic pressure testing may be warranted for piping in areas where facility drainage is such that a failure might lead to a spill event.

(v) Vehicular traffic granted entry into the facility should be warned verbally or by appropriate signs to be sure that the vehicle, because of its size, will not endanger above ground piping.

(4) *Facility tank car and tank truck loading/unloading rack (onshore)*. (i) Tank car and tank truck loading/unloading procedures should meet the minimum requirements and regulation established by the Department of Transportation.

(ii) Where rack area drainage does not flow into a catchment basin or treatment facility designed to handle spills, a quick drainage system should be used for tank truck loading and unloading areas. The containment system should be designed to hold at least maximum capacity of any single compartment of a tank car or tank truck loaded or unloaded in the plant.

(iii) An interlocked warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines.

(iv) Prior to filling and departure of any tank car or tank truck, the lowermost drain and all outlets of such vehicles should be closely examined for leakage, and if necessary, tightened, adjusted, or replaced to prevent liquid leakage while in transit.

(5) *Oil production facilities (onshore)*. (i) *Definition*. An onshore production facility may include all wells, flowlines, separation equipment, storage facilities, gathering lines, and auxiliary non-transportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) *Oil production facility (onshore) drainage*. (A) At tank batteries and central treating stations where an accidental discharge of oil would have a reasonable possibility of reaching navigable waters, the dikes or equivalent required under § 112.7(c)(1) should have drains closed and sealed at all times except when rainwater is being drained. Prior to drainage, the diked area should be inspected as provided in paragraph (c)(2)(iii) (B), (C), and (D). Accumulated oil on the rainwater should be picked up and returned to storage or disposed of in accordance with approved methods.

(B) Field drainage ditches, road ditches, and oil traps, sumps or skimmers, if such exist, should be inspected at regularly scheduled intervals for accumulation of oil that may have escaped from small leaks. Any such accumulations should be removed.

(iii) *Oil production facility (onshore) bulk storage tanks*. (A) No tank should be used for the storage of oil unless its material and construction are compatible with the material stored and the conditions of storage.

(B) All tank battery and central treating plant installations should be provided with a secondary means of containment for the entire contents of the largest single tank if feasible, or alternate systems such as those outlined in § 112.7(c)(1). Drainage from undiked areas should be safely confined in a catchment basin or holding pond.

(C) All tanks containing oil should be visually examined by a competent person for condition and need for maintenance on a scheduled periodic basis. Such examination should include the foundation and supports of tanks that are above the surface of the ground.

(D) New and old tank battery installations should, as far as practical, be fail-safe engineered or updated into a fail-safe engineered installation to prevent spills. Consideration should be given to one or more of the following:

(1) Adequate tank capacity to assure that a tank will not overflow should a pumper/gauger be delayed in making his regular rounds.

(2) Overflow equalizing lines between tanks so that a full tank can overflow to an adjacent tank.

(3) Adequate vacuum protection to prevent tank collapse during a pipeline run.

(4) High level sensors to generate and transmit an alarm signal to the computer where facilities are a part of a computer production control system.

(iv) *Facility transfer operations, oil production facility (onshore).* (A) All above ground valves and pipelines should be examined periodically on a scheduled basis for general condition of items such as flange joints, valve glands and bodies, grip pans, pipeline supports, pumping well polish rod stuffing boxes, bleeder and gauge valves.

(B) Salt water (oil field brine) disposal facilities should be examined often, particularly following a sudden change in atmospheric temperature to detect possible system upsets that could cause an oil discharge.

(C) Production facilities should have a program of flowline maintenance to prevent spills from this source. The program should include periodic examinations, corrosion protection, flowline replacement, and adequate records, as appropriate, for the individual facility.

(6) *Oil drilling and workover facilities (onshore)* (i) Mobile drilling or workover equipment should be positioned or located so as to prevent spilled oil from reaching navigable waters.

(ii) Depending on the location, catchment basins or diversion structures may be necessary to intercept and contain spills of fuel, crude oil, or oily drilling fluids.

(iii) Before drilling below any casing string or during workover operations, a blowout prevention (BOP) assembly and well control system should be installed that is capable of controlling any well head pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(7) *Oil drilling, production, or workover facilities (offshore).* (i) Definition: "An oil drilling, production or workover facility (offshore)" may include all drilling or workover equipment, wells, flowlines, gathering lines, platforms, and auxiliary nontransportation-related equipment and facilities in a single geographical oil or gas field operated by a single operator.

(ii) Oil drainage collection equipment should be used to prevent and control small oil spillage around pumps, glands, valves, flanges, expansion joints, hoses, drain lines, separators, treaters, tanks, and allied equipment. Drains on the facility should be controlled and directed toward a central collection sump or equivalent collection system sufficient to prevent discharges of oil into the navigable waters of the United States. Where drains and sumps are not practicable, oil contained in collection equipment should be removed as often as necessary to prevent overflow.

(iii) For facilities employing a sump system, sump and drains should be adequately sized and a spare pump or equivalent method should be available to remove liquid from the sump and assure that oil does not escape. A regular scheduled preventive maintenance inspection and testing program should be employed to assure reliable operation of the liquid removal system and pump start-up device. Redundant automatic sump pumps and control devices may be required on some installations.

(iv) In areas where separators and treaters are equipped with dump valves whose predominant mode of failure is in the closed position and pollution risk is high, the facility should be specially equipped to prevent the escape of oil. This could be accomplished by extending the flare line to a diked area if the separator is near shore, equipping it with a high liquid level sensor that will automatically shut-in wells producing to the separator, parallel redundant dump valves, or other feasible alternatives to prevent oil discharges.

(v) Atmospheric storage or surge tanks should be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges.

(vi) Pressure tanks should be equipped with high and low pressure sensing devices to activate an alarm and/or control the flow or other acceptable alternatives to prevent oil discharges.

(vii) Tanks should be equipped with suitable corrosion protection.

(viii) A written procedure for inspecting and testing pollution prevention equipment and systems should be prepared and maintained at the facility. Such procedures should be included as part of the SPCC Plan.

(ix) Testing and inspection of the pollution prevention equipment and systems at the facility should be conducted by the owner or operator on a scheduled periodic basis commensurate with the complexity, conditions and circumstances of the facility or other appropriate regulations.

(x) Surface and subsurface well shut-in valves and devices in use at the facility should be sufficiently described to determine method of activation or control, e.g., pressure differential, change in fluid or flow conditions, combination of pressure and flow, manual or remote control mechanisms. Detailed records for each well, while not necessarily part of the plan should be kept by the owner or operator.

(xi) Before drilling below any casing string, and during workover operations a blowout preventer (BOP) assembly and well control system should be installed that is capable of controlling any wellhead pressure that is expected to be encountered while that BOP assembly is on the well. Casing and BOP installations should be in accordance with State regulatory agency requirements.

(xii) Extraordinary well control measures should be provided should emergency conditions, including fire, loss of control and other abnormal conditions, occur. The degree of control system redundancy should vary with hazard exposure and probable consequences of failure. It is recommended that surface shut-in systems have redundant or "fail close" valving. Subsurface safety valves may not be needed in producing wells that will not flow but should be installed as required by applicable State regulations.

(xiii) In order that there will be no misunderstanding of joint and separate duties and obligations to perform work in a safe and pollution free manner, written instructions should be prepared by the owner or operator for contractors and subcontractors to follow whenever contract activities include servicing a well or systems appurtenant to a well or pressure vessel. Such instructions and procedures should be maintained at the offshore production facility. Under certain circumstances and conditions such contractor activities may require the presence at the facility of an authorized representative of the owner or operator who would intervene when necessary to prevent a spill event.

(xiv) All manifolds (headers) should be equipped with check valves on individual flowlines.

(xv) If the shut-in well pressure is greater than the working pressure of the flowline and manifold valves up to and including the header valves associated with that individual flowline, the flowline should be equipped with a high pressure sensing device and shut-in valve at the wellhead unless provided with a pressure relief system to prevent overpressuring.

(xvi) All pipelines appurtenant to the facility should be protected from corrosion. Methods used, such as protective coatings or cathodic protection, should be discussed.

(xvii) Sub-marine pipelines appurtenant to the facility should be adequately protected against environmental stresses and other activities such as fishing operations.

(xviii) Sub-marine pipelines appurtenant to the facility should be in good

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condition at all times and inspected on a scheduled periodic basis for failures. Such inspections should be documented and maintained at the facility.

(8) *Inspections and records.* Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years.

(9) *Security (excluding oil production facilities).* (i) All plants handling, processing, and storing oil should be fully fenced, and entrance gates should be locked and/or guarded when the plant is not in production or is unattended.

(ii) The master flow and drain valves and any other valves that will permit direct outward flow of the tank's content to the surface should be securely locked in the closed position when in non-operating or non-standby status.

(iii) The starter control on all oil pumps should be locked in the "off" position or located at a site accessible only to authorized personnel when the pumps are in a non-operating or non-standby status.

(iv) The loading/unloading connections of oil pipelines should be securely locked or blank-flanged when not in use or standby service for an extended time. This security practice should also apply to pipelines that are emptied of liquid content either by draining or by inert gas pressure.

(v) Facility lighting should be commensurate with the type and location of the facility. Consideration should be given to: (A) Discovery of spills occurring during hours of darkness, both by operating personnel, if present, and by non-operating personnel (the general public, local police, etc.) and (B) prevention of spills occurring through acts of vandalism.

(10) *Personnel, training and spill prevention procedures.* (i) Owners or operators are responsible for properly instructing their personnel in the operation and maintenance of equipment to prevent the discharges of oil and applicable pollution control laws, rules and regulations.

(ii) Each applicable facility should have a designated person who is accountable for oil spill prevention and who reports to line management.

(iii) Owners or operators should schedule and conduct spill prevention briefings for their operating personnel at intervals frequent enough to assure adequate understanding of the SPCC Plan for that facility. Such briefings

should highlight and describe known spill events or failures, malfunctioning components, and recently developed precautionary measures.

APPENDIX

Memorandum of Understanding between the Secretary of Transportation and the Administrator of the Environmental Protection Agency.

SECTION II—DEFINITIONS

The Environmental Protection Agency and the Department of Transportation agree that for the purposes of Executive Order 11548, the term:

(1) "Non-transportation-related onshore and offshore facilities" means:

(A) Fixed onshore and offshore oil well drilling facilities including all equipment and appurtenances related thereto used in drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(B) Mobile onshore and offshore oil well drilling platforms, barges, trucks, or other mobile facilities including all equipment and appurtenances related thereto when such mobile facilities are fixed in position for the purpose of drilling operations for exploratory or development wells, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(C) Fixed onshore and offshore oil production structures, platforms, derricks, and rigs including all equipment and appurtenances related thereto, as well as completed wells and the wellhead separators, oil separators, and storage facilities used in the production of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(D) Mobile onshore and offshore oil production facilities including all equipment and appurtenances related thereto as well as completed wells and wellhead equipment, piping from wellheads to oil separators, oil separators, and storage facilities used in the production of oil when such mobile facilities are fixed in position for the purpose of oil production operations, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(E) Oil refining facilities including all equipment and appurtenances related thereto as well as in-plant processing units, storage units, piping, drainage systems and waste treatment units used in the refining of oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(F) Oil storage facilities including all equipment and appurtenances related thereto as well as fixed bulk plant storage, terminal oil storage facilities, consumer storage, pumps and drainage systems used in the storage of oil, but excluding in-line or breakout storage tanks needed for the continuous operation of a pipeline system and any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(G) Industrial, commercial, agricultural or public facilities which use and store oil, but excluding any terminal facility, unit or process integrally associated with the handling or transferring of oil in bulk to or from a vessel.

(H) Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks, but excluding waste treatment facilities located on vessels and terminal storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels and associated systems used for off-loading vessels.

(I) Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a nontransportation-related facility or terminal facility and which are used to transfer oil in bulk to or from highway vehicles or railroad cars.

(J) Highway vehicles and railroad cars which are used for the transport of oil exclusively within the confines of a nontransportation-related facility and which are not intended to transport oil in interstate or intrastate commerce.

(K) Pipeline systems which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil in bulk to or from a vessel.

(2) "transportation-related onshore and offshore facilities" means:

(A) Onshore and offshore terminal facilities including transfer hoses, loading arms and other equipment and appurtenances used for the purpose of handling or transferring oil in bulk to or from a vessel as well as storage tanks and appurtenances for the reception of oily ballast water or tank washings from vessels, but excluding terminal waste treatment facilities and terminal oil storage facilities.

(B) Transfer hoses, loading arms and other equipment appurtenant to a nontransportation-related facility which is used to transfer oil in bulk to or from a vessel.

(C) Interstate and intrastate onshore and offshore pipeline systems including pumps and appurtenances related thereto as well as in-line or breakout storage tanks needed for the continuous operation of a pipeline system, and pipelines from onshore and offshore oil production facilities, but excluding onshore and offshore piping from wellheads to oil separators and pipelines which are used for the transport of oil exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended to transport oil in interstate or intrastate commerce or to transfer oil in bulk to or from a vessel.

(D) Highway vehicles and railroad cars which are used for the transport of oil in interstate or intrastate commerce and the equipment and appurtenances related thereto, and equipment used for the fueling of locomotive units, as well as the right-of-way on which they operate. Excluded are highway vehicles and railroad cars and motive power used exclusively within the confines of a nontransportation-related facility or terminal facility and which are not intended for use in interstate or intrastate commerce.

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